



A TEREX BRAND

Operator's Manual

Serial number range

GTH-5021 R

Stage 3A

Stage 3B

From serial n.: GTH5021R14-101

Original Instructions

First Edition

Second Printing

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Introduction

About This Manual

Genie appreciates your choice of our machine for your application. Our number one priority is user safety, which is best achieved by our joint efforts. This book is an operation and daily maintenance manual for the user or operator of a Genie machine.

This manual should be considered a permanent part of your machine and should remain with the machine at all times. If you have any questions, contact Genie.

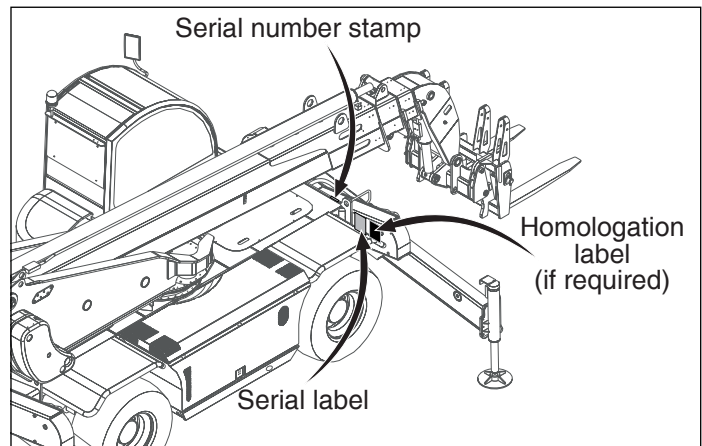
For Options Manuals (if equipped):

- **Key Pad Unlocking Device**
(Option part number 58.2513.1089)
- **Radio Remote Control**
(Option part number 58.2513.1038)
- **Radio Mp3**
(Option part number 58.2513.1093)

PLS visit our webpage at
www.genielift.com/en/service-support/manuals

Product Identification

The machine serial number is located on the serial label.



Intended Use

A slewing variable reach rough terrain forklift truck is defined as a wheeled type truck with a slewing upper structure which can rotate more than 5° left/right, a pivoting boom, which may be equipped with various attachments for picking, transporting and placing loads with the established load range charts. In standard configuration the machine rotates 200° left and 200° right; the 360° continuous rotation is optional.

Use of this product in any other way is prohibited and contrary to its intended use.

Introduction

Bulletin Distribution and Compliance

Safety of product users is of paramount importance to Genie. Various bulletins are used by Genie to communicate important safety and product information to dealers and machine owners.

The information contained in the bulletins is tied to specific machines using the machine model and serial number.

Distribution of bulletins is based on the most current owner on record along with their associated dealer, so it is important to register your machine and keep your contact information up to date.

To ensure safety of personnel and the reliable continued operation of your machine, be sure to comply with the action indicated in a respective bulletin.

Contacting the Manufacturer

At times it may be necessary to contact Genie.

When you do, be ready to supply the model number and serial number of your machine, along with your name and contact information. At minimum, Genie should be contacted for:

- Accident reporting
- Questions regarding product applications and safety
- Standards and regulatory compliance information
- Current owner updates, such as changes in machine ownership or changes in your contact information. See Transfer of Ownership, below.

Transfer of Machine Ownership

Taking a few minutes to update owner information will ensure that you receive important safety, maintenance and operating information that applies to your machine.

Please register your machine by visiting us on the web at www.genielift.co.uk.

Introduction



Danger

Failure to obey the instructions and safety rules in this manual will result in death or serious injury.

Do Not Operate Unless:

- ☒ You learn and practice the principles of safe machine operation contained in this operator's manual.
 - 1. Avoid hazardous situations.**
 - Know and understand the safety rules before going on to the next section.**
 - 2. Always perform a pre-operation inspection.
 - 3. Always perform function tests prior to use.
 - 4. Inspect the workplace.
 - 5. Only use the machine as it was intended.
- ☒ You read, understand and obey the manufacturer's instructions and the safety rules, the safety and operator's manuals, and the decals applied on the machine.
- ☒ You read, understand and obey the employer's safety rules and work-site regulations.
- ☒ You read, understand and obey all applicable governmental regulations.
- ☒ You are properly trained to safely operate the machine.

Introduction

Hazard Classification



Safety alert symbol - used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates a property damage message.

Standards

The following standards and/or regulations apply to this machine:

Directive

2006/42/EC Machinery Directive

2008/104/EC Electromagnetic compatibility

2000/14/CE Environment Acoustic Emissions

Safety Sign Maintenance

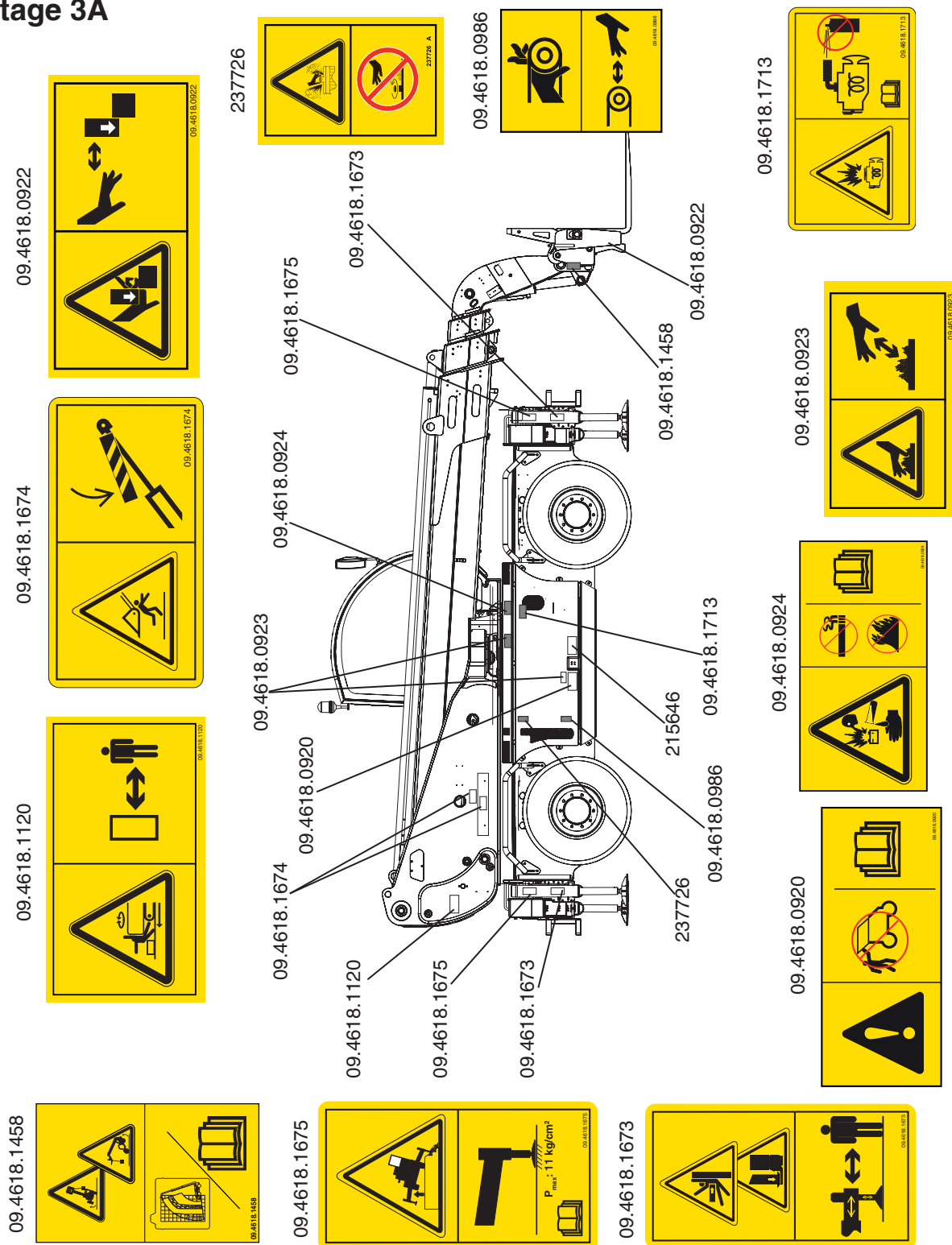
Replace any missing or damaged safety signs. Keep operator safety in mind at all times. Use mild soap and water to clean safety signs. Do not use solvent-based cleaners because they may damage the safety sign material.

Symbol and Hazard Pictorials Definitions

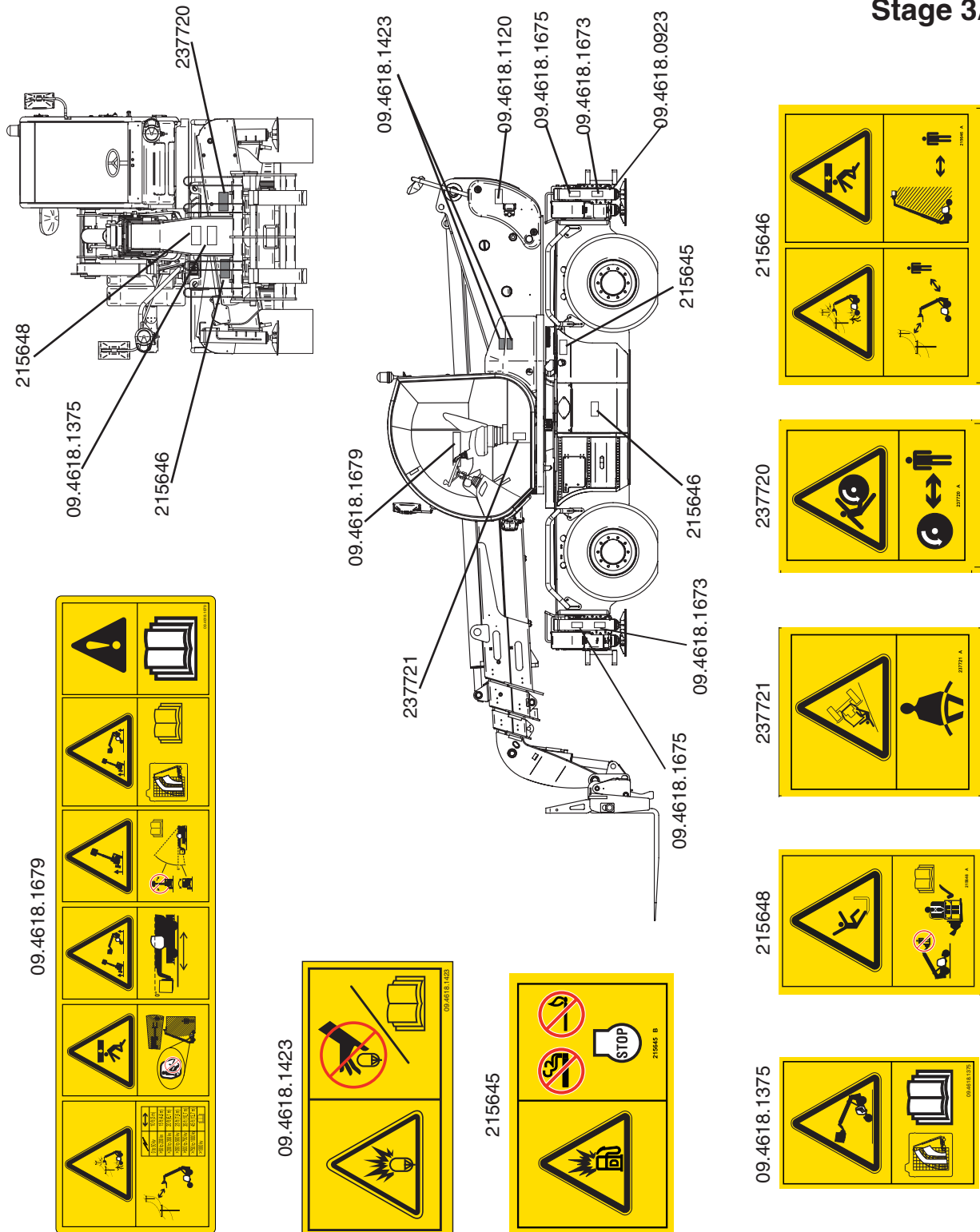
					
Electrocution hazard	Maintain required clearance.	Crush hazard.	No people under load	Read the operator's manual.	Tip-over hazard
					
Crush hazard.	Apply maintenance collar	Crush hazard.	Always wear seat belt.	Crush hazard	Keep away from slewing upper structure.
					
Crush hazard.	Keep away from moving parts.	Crush Hazard	Keep clear of moving parts.	Burn hazard.	Do not loosen cap until cool.
					
Explosion/burn hazard	No smoking. No open flame.	Burn Hazard	Allow surfaces to cool.	Crush hazard	Keep away from moving parts
					
Allow engine compartment access	Explosion/burn hazard	No smoking. No open flame.	Fall hazard	Work platform use	Refer to load charts and manual
					
Levelling operation	Keep load low	Do not use starting aids	Explosion hazard	Tip-over hazard	Tip-over hazard
					
Crush hazard.	Keep away from outriggers.	Crush hazard.	Keep clear from moving belt.	Explosion hazard	Do not use.

General Safety

Stage 3A

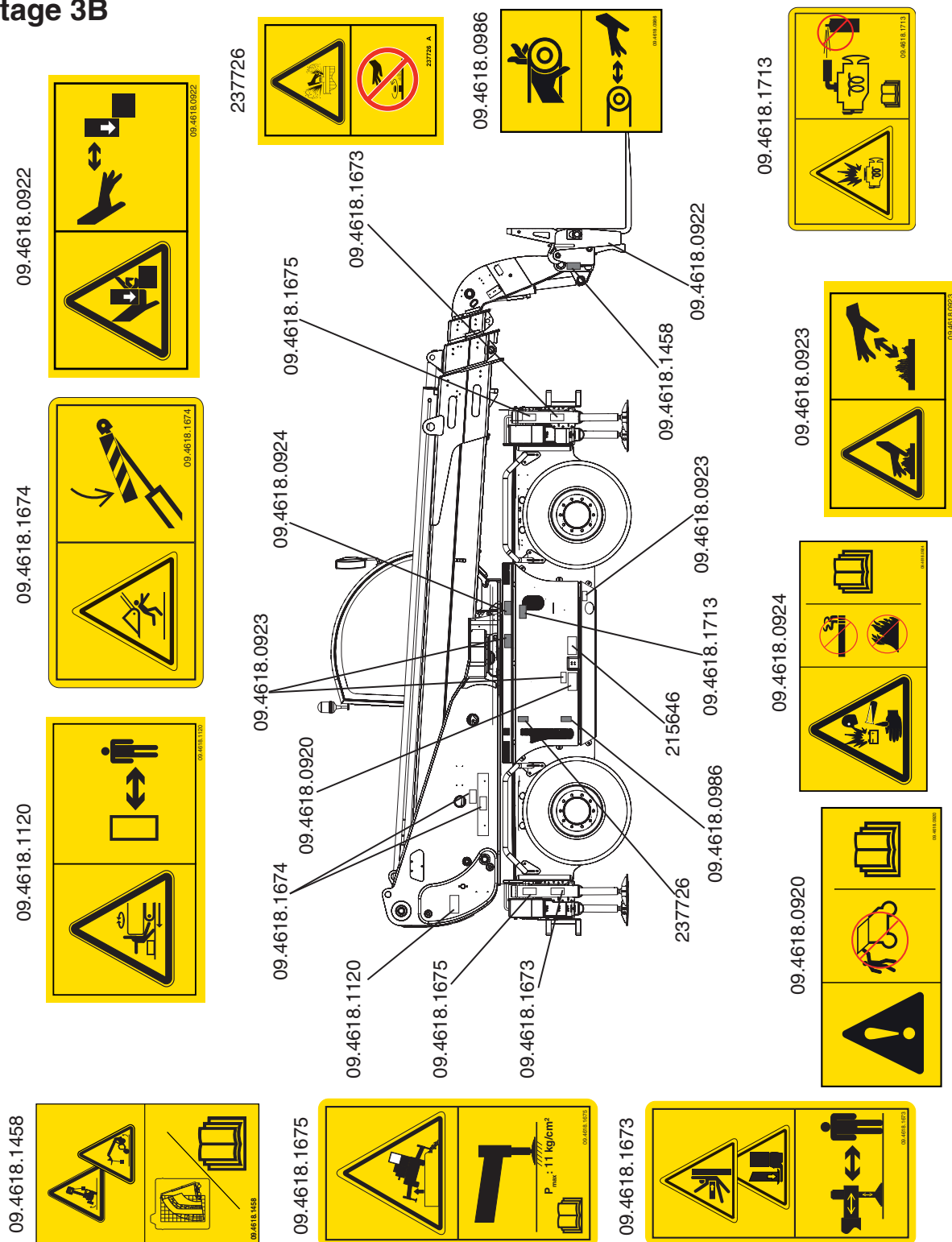


General Safety Stage 3A



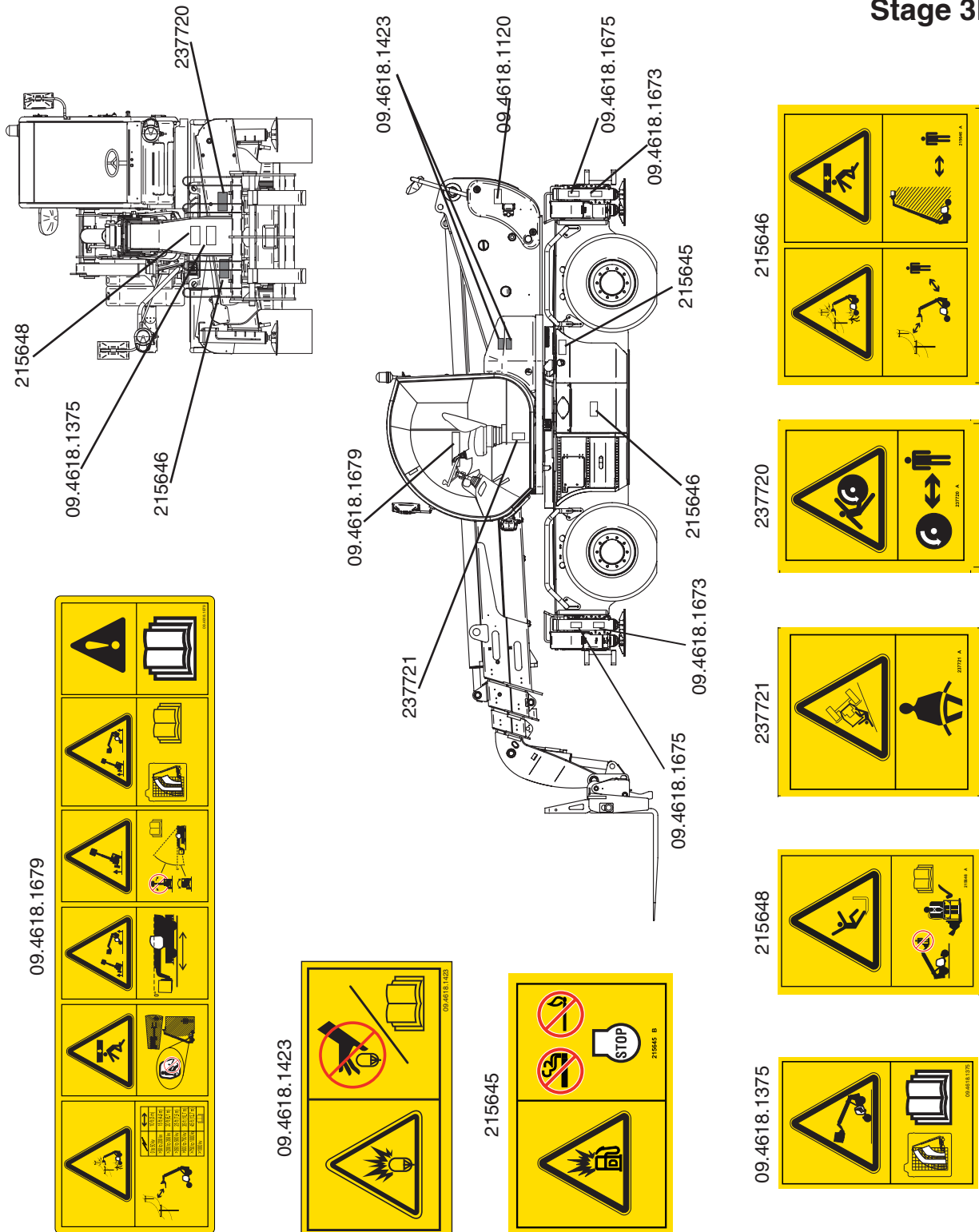
General Safety

Stage 3B



General Safety

Stage 3B



Work Area Safety

⚠ Overturning Hazards



Using the load chart, confirm that the load is within the rated capacity of the machine. Do not exceed the rated load.

The load center of the fork (if equipped) must be equal to or less than the load center indicated on the load chart.

All loads shown on the load chart are based on the machine being on firm ground, the frame being level, the forks being positioned evenly on the carriage, the load being centered on the forks, the tires being properly sized and properly inflated, and the telehandler being in good operating condition.

If using accessories, read, understand and obey the decals, instructions and manuals with the accessory.

Do not raise the load unless the ground can support all forces imposed by the machine.

Do not lower a load without retracting the boom first.

Do not operate the machine if the load chart is missing.

Do not exceed the rated capacity for each configuration.



Do not raise the boom unless the machine is level. The machine level indicator should be at zero degrees.

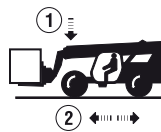
Do not level the machine using the frame levelling control unless the boom angle indicator is at zero degrees or less.

Do not work with the load limiting system cut out.



Do not use the levelling control to position an elevated load.

Do not raise a load and then drive to position it.



When driving, keep the boom at or below horizontal and keep the load close to the ground.

Operate the machine at speeds that will keep the load under control. Start and stop movements smoothly.



Do not raise a load unless the load is properly positioned or secured on the forks or approved attachment.

Do not operate the machine in strong or gusty winds. Do not increase the surface area of the carriage or load. Increasing the area exposed to the wind will decrease machine stability.

Use extreme care and slow speeds while driving the machine in the travel position across uneven terrain, debris, unstable or slippery surfaces and near holes and drop-offs.

Do not alter or disable machine components that in any way affect safety and stability.

Do not replace items critical to machine stability with items of different weight or specification.

Do not replace factory-installed tires with tires of different specification or ply rating.

Lateral inclination allowed during working phase $\pm 0,5^\circ$

Work Area Safety

Only use the machine on firm ground capable of supporting the maximum combined load of the machine and payload. If the subsoil collapses, the machine could tip over. To avoid any risk of overturning, the following precautions should be taken:

- Ask your employer (site manager or manager assistant) if there may be buried pipes, pits, old tanks, cellar floor, dung yards, etc. under the ground onto which the outriggers shall be lowered.
- A rough estimate of the ground consistency can be done using the tables and picture in this page.
- The resistance of the subsoil is in relation to the ground type and geomorphological characteristics.

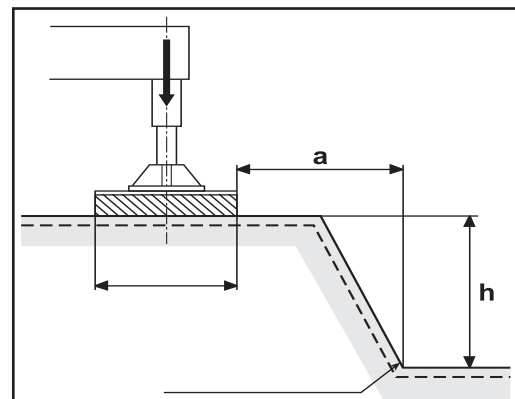
Table 1 indicates the superficial pressure which is allowed under the outriggers of the machine.

Type of ground, geomorphological features		Allowable superficial pressure	
		kg/cm ²	N/mm ²
loose, non-compact soil		generally speaking, not solid; special precautions needed	
loamy, peaty, pasty soil			
rippable, soft ground			
non-cohesive, well compact soil, sand, gravel		2.0	0.2
rippable soil	solid	1.0	0.1
	semi-solid	2.0	0.2
	hard	4.0	0.4
Rocks, concrete, heavy traffic paved roads		above 10.0	above 1.0

Table 1

Make sure the machine (wheels and outriggers) rests on a firm ground to prevent hazardous unstable conditions. If the ground is not firm enough, position some support planks, capable of withstanding the expected loads, under the outriggers or the wheels.

In presence of trenches, lower the outriggers at a safe distance from the trench edge.



a & h = minimum distances

The distance (a) from the foot of the overhang shall be adequate to height (h) of the same overhang.

If the ground fulfils the required conditions:

$$a : h = 1 : 1$$

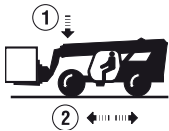
(values with a grey background in table 1)

In the case of doubts:

$$a : h = 2 : 1$$

Work Area Safety

⚠ Traveling on Slopes Hazards



When driving, keep the boom at or below horizontal and keep the load close to the ground.

When the machine is unloaded, travel with the forks or attachment downhill.

When the machine is loaded and on transfer mode (boom fully lowered and retracted):

- max inclination driving downhill 9°
- max inclination driving uphill 20°
- max lateral inclination $\pm 5^\circ$

On steep terrain, drive only up and down a hill, and always keep the machine in gear. Do not turn across the slope when the machine is traveling up or down a slope.

Limit travel path and speed according to the condition of the ground surface, traction, slope, location of personnel and any other factors which may create a hazard. Never drive the machine unless the mast and equipment are in their proper travel position. Whether a machine will tip over during dynamic machine operation involves many factors that need to be considered. Among these are pavement/ground conditions, stability and slope, as well as machine equipment, operator skill, load position, tire inflation, machine speed, etc.

Additionally, tip-over of a machine is dependent in large part upon operator inputs such as the speed and smoothness of the operation, as well as the position of the attachment and its load.

Construction sites and roads will frequently change slope from place to place, can be hard and soft, and change due to construction activities and weather.

Operators should be properly trained and use their best judgment and experience to take the necessary precautions to prevent a tip-over.

Operators must assess the job site variables and avoid exceeding the machine's (or operator's) capabilities for terrain and conditions.

⚠ Fall Hazards



Always wear a seat belt when operating the machine.

Always remain completely inside the cab when operating the machine.

When getting in and out of the cab, face the machine, use the steps and handrails provided and always maintain three-point contact.

Do not use the steering wheel or any other controls as handrails.



Do not allow riders on the machine or forks.



Do not transport or lift personnel with this machine unless it is equipped with an approved work platform.

Work Area Safety

⚠ Collision Hazards

Do not put the transmission into gear unless the parking brake is set.

Do not drive the machine if visibility is obstructed.

Do not raise the boom unless the parking brake is set.

Do not operate in conditions without fenders to protect debris from hitting the operator or accumulating on the cab windows.

Do not operate the machine with a faulty back-up alarm. The back-up alarm should sound when the machine is in reverse.

Do not operate the machine in low light conditions.

Operators must comply with employer, job site and governmental rules regarding use of personal protective equipment.

Do not drive the machine directly up to anyone.

If a radio and/or mp3 player is equipped, keep the volume low enough to hear surrounding environment (i.e. traffic, alarms, people etc.).

Do not adjust the controls while driving or manoeuvring a load.

Be aware of boom position and tail swing, in proximity with people and objects, when slewing the turret.

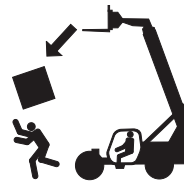
Do not drive when the slewing upper structure is rotated without first verifying travel machine direction.

Do not drive the machine unless the outriggers are fully retracted.

Do not realign the wheels while driving. Always realign wheels before changing steering modes. Refer to the Steer Select operating instructions.

⚠ Falling Object Hazards

Operate the machine at speeds that will keep the load under control. Start and stop movements smoothly.



Keep people, equipment and material out of the work area. Do not operate the machine while people are under or near an elevated boom, whether it is loaded or unloaded.

Be sure the load is secure before lifting it.

Work Area Safety

⚠ Bodily Injury Hazards



Always adjust the seat and fasten the seat belt before starting the engine.



Do not operate the machine with a hydraulic oil or air leak. An air leak or hydraulic leak can penetrate and/or burn skin.



Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Fluid injected into skin must be surgically removed within a few hours by a doctor familiar with this type of injury or gangrene will result.



Stay clear of belts and fans when the engine is running.

Always operate the machine in a well-ventilated area to avoid carbon monoxide poisoning.

Improper contact with components under any cover will cause serious injury. Only trained maintenance personnel should access compartments. Access by the operator is only advised when performing a pre-operation inspection. All compartments must remain closed and secured during operation.

⚠ Damaged Machine Hazards

Do not use a damaged or malfunctioning machine.

Conduct a thorough pre-operation inspection of the machine and test all functions before each work shift. Immediately tag and remove from service a damaged or malfunctioning machine.

Be sure all maintenance has been performed as specified in this manual and the appropriate Genie service manual.

Be sure all decals are in place and legible.

Be sure the operator's and safety manuals are complete, legible and in the storage container located in the cab.

Do not attempt to start the machine by towing or pushing.

Do not attempt to use the forks or attachments for prying wedged or frozen loads free.

Do not push or pull objects or loads with the forks, attachment or boom.

Work Area Safety

⚠ Component Damage Hazards

Do not use any battery or charger greater than 12V to jump-start the engine.

Do not use the machine as a ground for welding.

Do not steer the front tires on dry pavement when the axle differential lock is activated.

Do not lock the axle differential when the machine is moving.

⚠ Crush Hazards

Do not operate the outriggers while people are in the path of movement.

Keep clear of moving parts during machine operation.

Set the parking brake, put the transmission in neutral and lower the carriage or the attachment to the ground before leaving the machine.

Keep clear of elevated components.

Support components before performing service. Keep clear of moving parts during machine operation.

Do not operate the slewing function while people are in the path of movement.

Do not operate the outrigger, transmission, chassis levelling or steering controls when the slewing upper structure is rotated over 90° from center, without first verifying the direction of movement according to the operating instructions. All movements are reversed when the slewing upper structure is rotated beyond 90° from center.

⚠ Burn Hazards



Allow hot surfaces to cool before touching or servicing.

⚠ Explosion and Fire Hazards

Do not start the engine if you smell or detect liquid petroleum gas (LPG), gasoline, diesel fuel or other explosive substances.

Do not refuel the machine with the engine running.



Refuel the machine and charge the battery only in an open, well-ventilated area away from sparks, flames and lighted tobacco.

Do not operate the machine in hazardous locations or locations where potentially flammable or explosive gases or particles may be present.

Do not spray ether into engines equipped with glow plugs or air intake grid heaters.

Do not use air or oxygen for charging the accumulators.

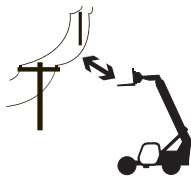
Work Area Safety

⚠ Electrocuting Hazards

This machine is not electrically insulated and will not provide protection from contact with or proximity to electrical current.



Obey all local and governmental regulations regarding required clearance from electrical power lines. At a minimum, the required clearance contained in the chart below must be followed.



Do not use the machine as a ground for welding.

Always contact the electrical power line owner. The electrical power shall be disconnected or the power lines moved or insulated before machine operations begin.

Allow for boom movement, electrical line levelling or sag, and beware of strong or gusty winds.

Keep away from the machine if it contacts energized power lines. Personnel on the ground or in the cab must not touch or operate the machine until energized power lines are shut off.

Do not operate the machine during lightning or storms.

Line Voltage	Required	Clearance
0 to 50kV	10 ft	3.05 m
>50 to 200kV	15 ft	4.06 m
>200 to 350kV	20 ft	6.10 m
>350 to 500kV	25 ft	7.62 m
>500 to 750kV	35 ft	10.67 m
>750 to 1000kV	45 ft	13.72 m
over 1000kV	see below	

For power lines over 1000kV, the minimum clearance distance must be established by the utility owner or operator or by a registered professional engineer who is a qualified person with respect to electrical power transmission and distribution.

Work Area Safety

⚠ Battery Safety

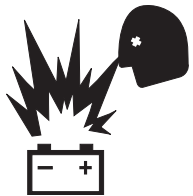
Burn Hazards



Batteries contain acid. Always wear protective clothing and eye wear when working with batteries.

Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

Explosion Hazards



Keep sparks, flames and lighted tobacco away from batteries. Batteries emit explosive gas.



Electrocution Hazard

Avoid contact with electrical terminal.

Using the Charger (if equipped), be sure the device works at 12 Volt and doesn't exceed 15 Ampere.

During maintenance or repair works, and while welding, disconnect the battery by turning the cut-out switch (see Inspection for Decals section).

⚠ Employer's Responsibilities

Employers are responsible for providing a safe work environment and for complying with local and national governmental regulations.

⚠ Personal Safety

Be sure that everyone working on or near this machine is familiar with the applicable safety precautions.

Safety Precautions

▲ Requisites Of The Machine Operators

The operators who use the machine regularly or occasionally (i.e. for transport reasons) shall have the following prerequisites:

health:

before and during any operation, operators shall never take alcoholic beverages, medicines or other substances that may alter their psycho-physical conditions and, consequently, their working abilities.

physical:

good eyesight, acute hearing, good co-ordination and ability to carry out all required operations in a safe way, according to the instructions of this manual.

mental:

ability to understand and apply the enforced rules, regulations and safety precautions. They shall be careful and sensible for their own as well as for the others' safety and shall desire to carry out the work correctly and in a responsible way.

emotional:

they shall keep calm and always be able to evaluate their own physical and mental conditions.

training:

they shall read and be familiar with this handbook, its enclosed graphs and diagrams, the identification and hazard warning plates. They shall be skilled and trained about the machine use.

The operator shall have a licence (or a driving licence) when provided for by the laws enforced in the country where the machine works. Please, ask the competent bodies. In Italy the operator must be at least 18 year old.

▲ Requisites of the servicemen

The personnel charged with the machine maintenance shall be qualified, specialised in the maintenance of telehandlers, and shall have the following prerequisites:

physical:

good eyesight, acute hearing, good co-ordination and ability to carry out all required maintenance operations in a safe way, according to this manual.

mental:

ability to understand and apply the enforced rules, regulations and safety precautions. They shall be careful and sensible for their own as well as for the others' safety and shall desire to carry out the work correctly and in a responsible way.

training:

they shall read and be familiar with this handbook, its enclosed graphs and diagrams, the identification and warning plates. They shall be skilled and trained about the machine functioning.

From a technical point of view, the ordinary maintenance of the machine is not a complex intervention and can be carried out by the machine operator, too, provided he has a basic knowledge of mechanics.

Safety Precautions

⚠ Working clothes

During work, but especially when maintaining or repairing the machine, operators must wear suitable protective clothing:

- Overalls or any other comfortable garments. Operators should not wear clothes with large sleeves or objects that can get stuck in moving parts of the machine.
- Protective helmet.
- Protective gloves.
- Working shoes.



Use only type-approved working clothing in good condition.

⚠ Personal protective equipment

Under special working conditions, the following personal protective equipment should be used:

- Breathing set (or dust mask).
- Ear-protectors or equivalent equipment.
- Goggles or facial masks.

Safety Precautions

Control Indicators and Interlocks

Several control indicators and interlocks have been fitted to the machine. They must never be tampered with or removed.

Always perform a function test to check the proper operation of these devices.

Never operate a machine that is malfunctioning. If the machine starts to malfunction, immediately stop using it and have it repaired.

Load Limiting system

The Load Limiting System has been developed to help the operator to maintain the machine longitudinal stability. Audible and visual messages are provided when the limits of longitudinal stability are being approached.

However this device cannot replace the experience of the operator. It is up to the user to adopt the necessary safety measures to work within the rated limits of the machine.

The Load Limiting System is designed to function only:

when the truck is static;

- when the truck is on consolidated, stable and level ground;
- when the truck is performing loading or placing functions;
- when the Load Limiting System is activated (not overridden).

The Load Limiting System will only warn the operator in the event of inadequate stability in the longitudinal plane in the forward direction.

The Load Limiting System is not intended for warning of the risk of overturning in the case of:

- a sudden overload;
- travelling with the load in the elevated position;
- travelling on rough terrain or on grounds with obstacles and holes;
- travelling across a slope or turning on a slope;
- driving in bends too fast or too sharp;

Adjustments affecting the setting of the Load Limiting System shall be performed only by authorised personnel.

Seat Interlock

This micro switch is located inside the seat cushion, and it prevents any machine transmission movements if the operator is not correctly seated in the driving seat.

Emergency Stop Push-button

This device have to be used to stop the machine during an emergency situation.

By pressing this button, the engine shuts down while the Load Limiting System stays active.

Before restarting the machine, it is necessary to reset the push-button by rotating it clockwise.

Enabling Function Switch on Joystick

The joystick is equipped with an enabling function switch. This red finger switch must be held pressed down until the joystick functions have been completed; if it is released, the manoeuvre stops.

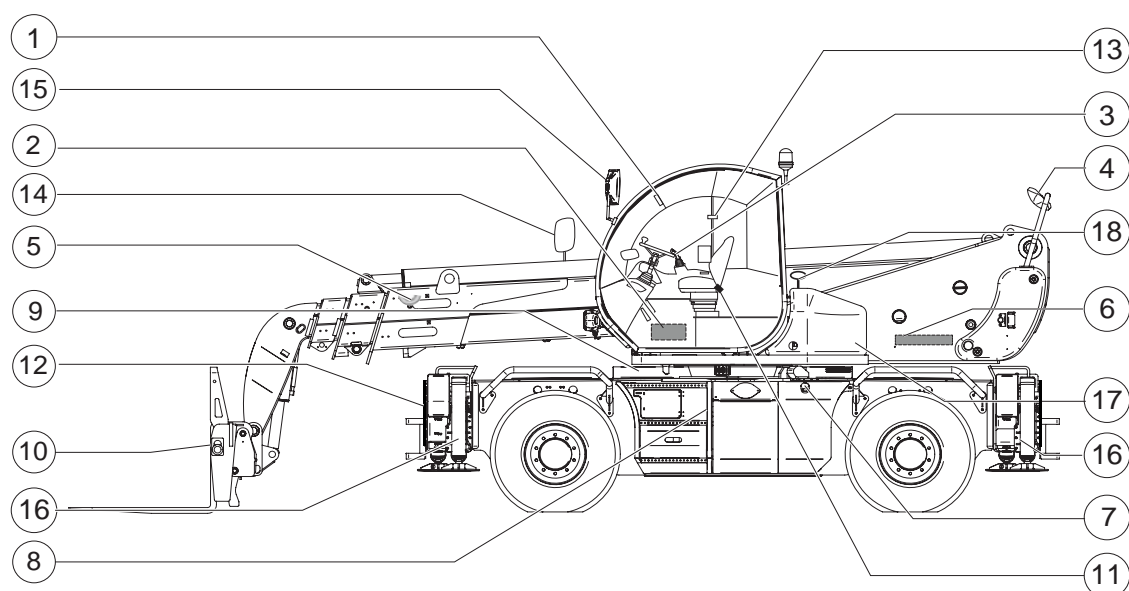
Sensors on Outriggers

Each outrigger is equipped with one sensor and one load pin:

- Magnetic micro with target: it tells the load limiting system when the outrigger is fully lowered, cutting out the transmission;
- Load pin: it tells when the outrigger reaches the ground recording the pressure of the machine weight on the ground.

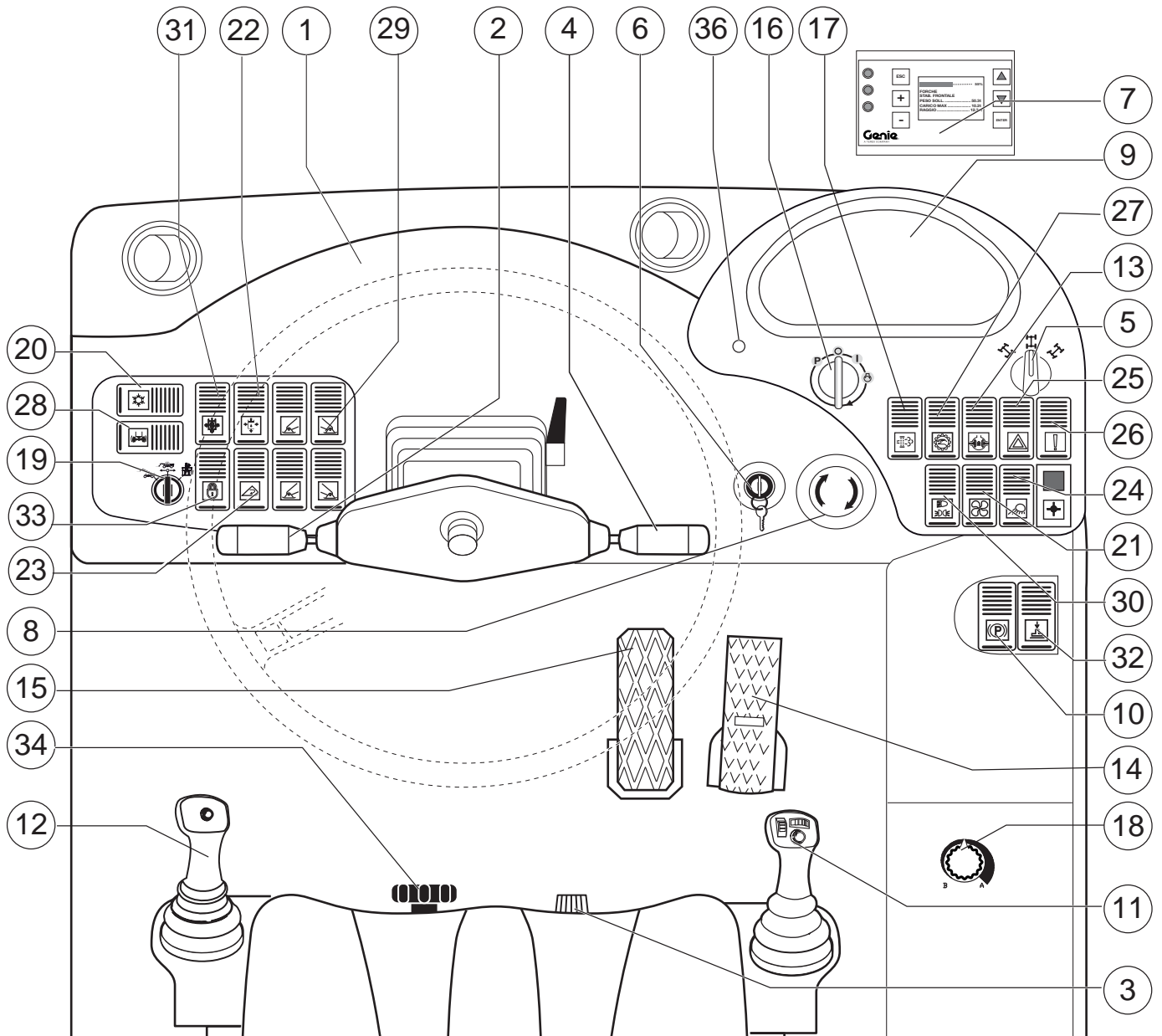
The load limiting system changes configuration from "NOT STABILIZED" to "STABILIZED" only when both conditions occur.

Legend



- | | |
|--|--|
| 1. Left/right level indicator | 10. Forks |
| 2. Operator's manual storage
(door internal side) | 11. Seat belt |
| 3. Right control handle | 12. Outriggers pads (if equipped) |
| 4. Rear fish eye mirror | 13. Front/rear level indicator |
| 5. Boom angle indicator | 14. Right rear view mirror |
| 6. Maintenance collar (on
opposite side of machine) | 15. Left rear view mirror |
| 7. Fuel filler | 16. Outriggers |
| 8. Hydraulic oil level gauge | 17. Main valve housing |
| 9. Engine (on opposite side of
machine) | 18. Slewing upper structure locking
pin |

Controls




Controls

Control Panel

1. Steering wheel
2. Transmission control lever - Horn button
3. Seat controls
4. Turn signal - Windshield washer/wiper - High beams
5. Steer select switch
6. Load limiting disable selector
7. Load limiting indicator
8. Emergency stop push-button
9. Instruments panel
10. Parking brake switch
11. Right control handle
12. Left control handle (if equipped)
13. Axle differential lock switch
14. Accelerator pedal
15. Brake pedal
16. Ignition switch
17. DPF switch (EU model)
18. Slewing upper structure rotation speed potentiometer
19. Job-site/road/platform selector
20. A/C switch (if equipped)
21. Cab heater fan switch
22. Auxiliary hydraulic circuit switch (if equipped)
23. Mixing bucket switch (if equipped)
24. Work lights switch (if equipped)
25. Hazard warning lights switch
26. Emergency pump switch (if equipped)
27. Gear selection switch
28. Chassis levelling switch (if equipped)
29. Outriggers switches
30. Road lights switch
31. Hydraulic mixing bucket oil direction switch (if equipped)
32. Outriggers lowering switch
33. Hydraulic quick coupling enabling switch (if equipped)
34. Heater and air conditioning controls
35. Steering column control
36. Diagnostic button

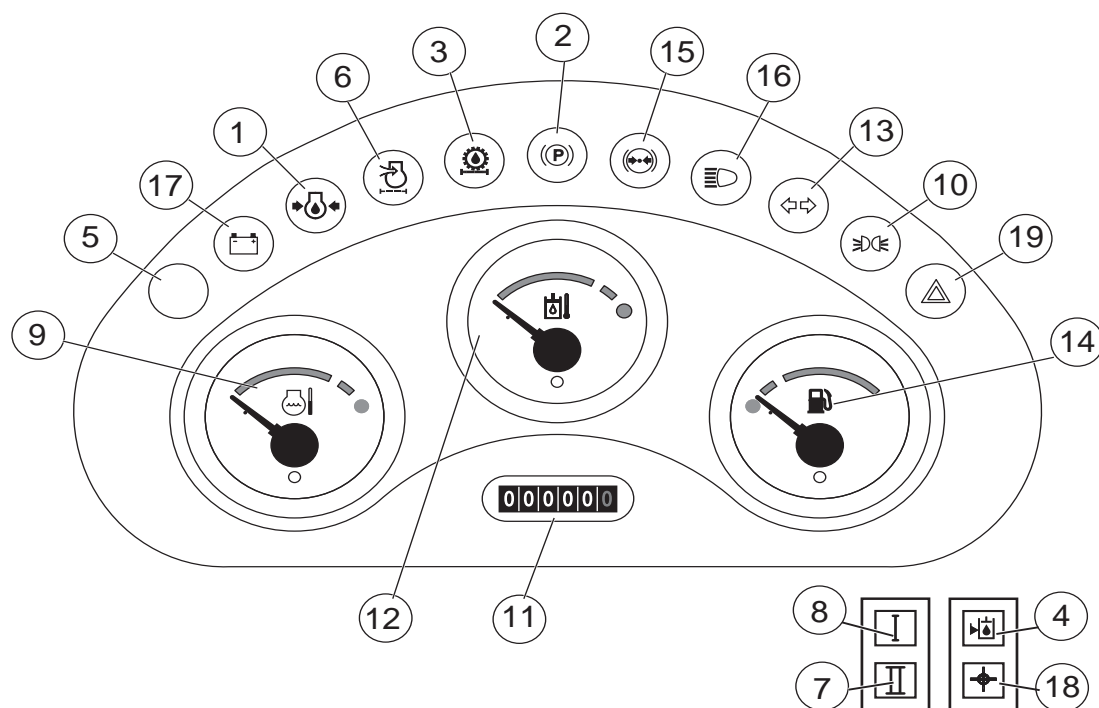
Controls

- 1 **Steering wheel**
Turn the steering wheel to the right to turn the front wheels to the right. Turn the steering wheel to the left to turn the front wheels to the left.
- 2 **Transmission control lever - Horn button**
Move the transmission control lever away from you for forward gear. Move the lever toward you for reverse gear. Move the lever to the center position for neutral.
Press the top end lever button and the horn will sound. Release the button and the horn will stop.
- 3 **Seat controls**
See "Adjusting the Seat" section.
- 4 **Turn signal - Windshield washer/wiper - High beams**
Move the lever forward to activate the right turn signal. Move the lever backward to activate the left turn signal.
Press the top button at the end of the lever to direct a jet of water onto the cab windscreen.
Rotate the lever tip to operate the windscreen wiper.
Push the lever down to turn the high beams on (after pushing the *Road lights switch 30*). Push the lever up to use high beams for intermittent signalling.
- 5 **Steer select switch**
Rotate the steer selector to the right side to select four-wheel steer. Rotate the steer selector to the middle position to select two-wheel steer. Rotate the steer selector to the left to select crab steer.
- 6 **Load limiter disable selector**
See "Load Limiting Indicator" section.
- 7 **Load limiting indicator**
See "Load Limiting Indicator" section.
- 8 **Emergency stop push-button**
See "Control Indicators and Interlocks" section.
- 9 **Instrument panel**
- 10 **Parking brake switch**
Push the bottom of the rocker switch to turn the parking brake on. Push the top of the switch to turn the parking brake off.
- 11 **Right control handle (single)**
See "Controller movements" section.
- 12 **Left control handle (if equipped)**
See "Controller movements" section.
- 13 **Axle differential lock switch**
Push and hold the switch to activate the axle differential lock. Release the switch to release the axle differential lock.
- 14 **Accelerator pedal**
- 15 **Brake pedal**
- 16 **Ignition switch**
Turn the key to the  position and hold until the glow plugs preheating indicator light turns off; when released, key springs back to pos. I automatically. Turn the key to position **P** to switch the control from the cab to platform.
- 17 **DPF switch (EU model)**
Push the bottom of the rocker switch to enable the DPF regeneration. Push the top of the switch to inhibit the DPF regeneration.
- 18 **Slewing upper structure rotation speed potentiometer**
Turn the potentiometer clockwise to increase the turret rotation speed.
- 19 **Job-site/road/platform selector**
Rotate the steer selector to the left to select job-site mode. Rotate the steer selector to the middle position to select road transfer mode. Rotate the steer selector to the right side to select platform mode (if present).
- 20 **A/C switch**
Push the switch to turn the A/C on. Push the switch to turn the A/C off.

Controls

- 21 Cab heater fan switch
Push the bottom of the switch to turn the cab heater fan on: first position for low speed and second position for high speed. Push the top of the switch to turn the cab heater fan off.
- 22 Auxiliary hydraulic circuit switch (if equipped)
Push the button to switch the hydraulic directional flow between the two auxiliary lines.
- 23 Mixing bucket switch (if equipped)
Push the bottom of the rocker switch to enable the hydraulic mixing bucket functioning. Push the top of the switch to stop the hydraulic mixing bucket functioning.
24. Work lights switch (if equipped)
Push the rocker switch to turn the work lights on: first position for front & boom working lights and second position for front, boom & rear working lights.
- 25 Hazard warning lights switch (if equipped)
Push the bottom of the switch to turn the hazard warning lights on. Push the top of the switch to turn the hazard warning lights off.
- 26 Emergency pump switch (if equipped)
Push the switch to activate the emergency pump. Release the switch to release the emergency pump.
- 27 Mechanical Gear Switch
Push the bottom of the rocker switch to select the required speed: each pressure corresponds to the selection of a new speed.
28. Chassis levelling switch (if equipped)
Push and hold the switch until the complete execution of the function selected: push the left side to raise the right-hand side of the machine; push the right side to lower the right-hand side of the machine.
29. Outriggers switches
Push the top of the switches to extend and lower the outriggers. Push the bottom of the switches to raise and retract the outriggers
30. Road lights switch
Push the rocker switch to turn the road lights on: first position for position lights and second position for low beams.
31. Hydraulic mixing bucket oil direction switch (if equipped)
Press the switch to regulate the oil flow direction towards right or left: push the top to direct the oil towards left; push the bottom to direct the oil towards right.
32. Outriggers lowering switch
33. Hydraulic quick attach enabling switch (if equipped)
Push and hold the switch to enable the coupling or the release of the attachment, managed by the *Right control handle* or by the *Left control handle* (if equipped)
- 34 Heater and air conditioning controls
- 35 Steering column control
Unlock the lever on the right-bottom side and pull or push the steering wheel to the required position, then re-lock it.
- 36 Diagnostic button
Push the button to scroll the LCD screen menu.

Controls Stage 3A



Instrument Panel

- | | |
|---|--|
| 1. Low engine oil pressure indicator light | 13. Turn signal indicator light |
| 2. Parking brake engaged indicator light | 14. Fuel level gauge with low fuel indicator light |
| 3. Hydraulic oil filter clogged indicator light | 15. Brake pressure low indicator light |
| 4. Low hydraulic oil level indicator light | 16. High beam indicator light |
| 5. Glow plugs preheating indicator light | 17. Battery voltage low indicator light |
| 6. Engine air filter restricted indicator light | 18. Machine levelling indicator light |
| 7. 2nd gear engaged indicator light | 19. Warning lights indicator light |
| 8. 1st gear engaged indicator light | |
| 9. Engine coolant temperature gauge with high coolant temperature indicator light | |
| 10. Position light indicator light | |
| 11. Hour-meter | |
| 12. High hydraulic oil temperature indicator light | |

Controls Stage 3A

1 Low engine oil pressure indicator light

When illuminated this light indicates that the engine oil pressure is too low which can lead to machine damage. Discontinue use of the machine and service.

3 Hydraulic oil filter clogged indicator light

When illuminated this light indicates that the hydraulic oil filter is clogged which can lead to machine damage. Discontinue use of the machine and service.

4 Low hydraulic oil level indicator light

When illuminated this light indicates that the hydraulic oil level is too low which can lead to machine damage. Replenish and eliminate any oil leaks.

6 Engine air filter restricted indicator light

When this lamp comes on, the engine air filter is clogged proceed with cleaning or changing the air filter cartridge.

9 Engine coolant temperature gauge with high coolant temperature indicator light

When gauge reaches red, the engine coolant is too hot which can lead to engine damage. Discontinue use and service the engine

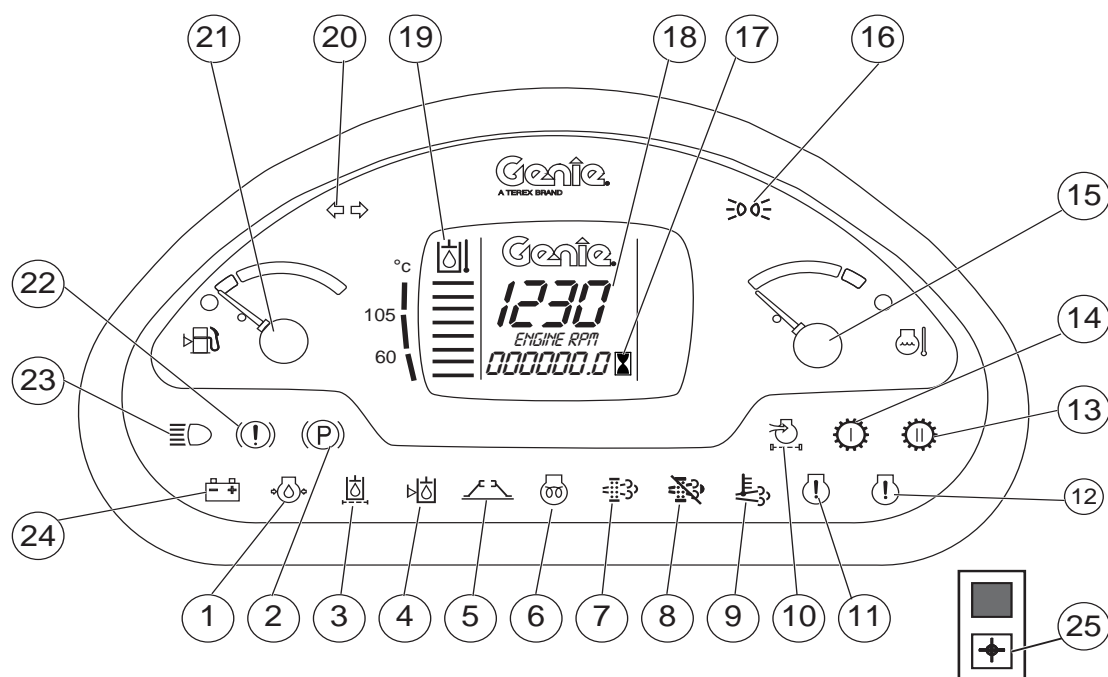
12 High hydraulic oil temperature indicator light

This indicates the temperature of the hydraulic oil in the tank which can lead to machine damage. Discontinue use of the machine and service.

15 Brake pressure low indicator light

It lights when the pressure of the braking circuit is too low for a correct functioning which can lead to machine damage. Discontinue use of the machine and service.

Controls Stage 3B



Instrument Panel

- | | |
|--|--|
| 1. Low engine oil pressure indicator light | 14. 1st gear engaged indicator light |
| 2. Parking brake engaged indicator light | 15. Engine coolant temperature gauge with high coolant temperature indicator light |
| 3. Hydraulic oil filter clogged indicator light | 16. Position light indicator light |
| 4. Low hydraulic oil level indicator light | 17. Hour-meter |
| 5. Lowered outriggers indicator light | 18. Tachometer |
| 6. Glow plugs preheating indicator light | 19. High hydraulic oil temperature indicator light |
| 7. Diesel particulate filter (DPF) indicator light | 20. Turn signal indicator light |
| 8. DPF disabled indicator light | 21. Fuel level gauge with low fuel indicator light |
| 9. High exhaust system temperature indicator light | 22. Brake pressure low indicator light |
| 10. Engine air filter restricted indicator light | 23. High beam indicator light |
| 11. DPF Alert indicator light | 24. Battery voltage low indicator light |
| 12. Engine Critical Fault indicator light | 25. Machine levelling indicator light |
| 13. 2nd gear engaged indicator light | |

Controls Stage 3B

1 Low engine oil pressure indicator light

When illuminated this light indicates that the engine oil pressure is too low which can lead to machine damage. Discontinue use of the machine and service.

3 Hydraulic oil filter clogged indicator light

When illuminated this light indicates that the hydraulic oil filter is clogged which can lead to machine damage. Discontinue use of the machine and service.

4 Low hydraulic oil level indicator light

When illuminated this light indicates that the hydraulic oil level is too low which can lead to machine damage. Replenish and eliminate any oil leaks.

5 Lowered outriggers indicator light

When illuminated this light indicates that the four outriggers are completely lowered.

7 Diesel particulate filter indicator light

When illuminated this light indicates that the DPF is in need of regeneration. Park the machine in a safe location, press the DPF switch and refer to the DPF regeneration instructions in the supplemental engine operator's manual.

8 DPF disabled indicator light

When illuminated this light indicates that a regeneration has been inhibited.

9 High exhaust system temperature indicator light

When illuminated this light indicates that a regeneration is underway and that emission system temperatures are elevated.

10 Engine air filter restricted indicator light

When this lamp comes on, the engine air filter is clogged proceed with cleaning or changing the air filter cartridge.

11 DPF Alert indicator light

This light flashes to warn with a problem of the engine. To identify the problem, see the two sections "Engine Lamp Logic"

12 Engine Critical Fault indicator light

This light comes on to warn of a problem with the engine. To identify the problem, see the two sections "Engine Lamp Logic"

15 Engine coolant temperature gauge with high coolant temperature indicator light

When gauge reaches red, the engine coolant is too hot which can lead to engine damage. Discontinue use and service the engine

19 High hydraulic oil temperature indicator light

This indicates the temperature of the hydraulic oil in the tank which can lead to machine damage. Discontinue use of the machine and service.

22 Brake pressure low indicator light

It lights when the pressure of the braking circuit is too low for a correct functioning which can lead to machine damage. Discontinue use of the machine and service.

Inspections



Do Not Operate Unless:

- ☑ You learn and practice the principles of safe machine operation contained in this operator's manual.

1. Avoid hazardous situations.

2. Always perform a pre-operation inspection.

Know and understand the pre-operation inspection before going on to the next section.

3. Always perform function tests prior to use.

4. Inspect the workplace.

5. Only use the machine as it was intended.

Pre-operation Inspection Fundamentals

It is the responsibility of the operator to perform a pre-operation inspection and routine maintenance.

The pre-operation inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests.

The pre-operation inspection also serves to determine if routine maintenance procedures are required. Only routine maintenance items specified in this manual may be performed by the operator.

Refer to the list on the next page and check each of the items.

If damage or any unauthorized variation from factory delivered condition is discovered, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection again before going on to the function tests.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications and the requirements listed in the responsibilities manual.

Inspections

Pre-operation Inspection

- ☐ Be sure that the operator's and safety manuals are complete, legible and in the storage container located in the cab.
- ☐ Be sure that all decals are legible and in place. See Inspections section.
- ☐ Check for hydraulic oil leaks and proper oil level. Add oil if needed. See Maintenance section.
- ☐ Check for battery fluid leaks and proper fluid level. Add distilled water if needed. See Maintenance section.
- ☐ Check for engine oil leaks and proper oil level. Add oil if needed. See Maintenance section.
- ☐ Air-filled tires models: Check for proper tire pressure. Add air if needed. See Maintenance section.

Check the following components or areas for damage, improperly installed or missing parts and unauthorized modifications:

- ☐ Electrical components, wiring and electrical cables
- ☐ Hydraulic hoses, fittings, cylinders and manifolds
- ☐ Fuel and hydraulic tanks
- ☐ Drive motors and drive hubs
- ☐ Boom wear pads
- ☐ Tires and wheels
- ☐ Mirrors
- ☐ Engine and related components

- ☐ Limit switches
- ☐ Lights, alarms and beacons
- ☐ Pins, nuts, bolts and other fasteners

Check entire machine for:

- ☐ Cracks in welds or structural components
- ☐ Dents or damage to machine
- ☐ Excessive rust, corrosion or oxidation
- ☐ Be sure that all structural and other critical components are present and all associated fasteners and pins are in place and properly tightened.
- ☐ Be sure the windshield and windows (if equipped) are clean and free of obstructions that might limit visibility.
- ☐ After you complete your inspection, be sure that all guards, screens and compartment covers are in place and secured.

Inspections



Do Not Operate Unless:

- ☑ You learn and practice the principles of safe machine operation contained in this operator's manual.

1. Avoid hazardous situations.

2. Always perform a pre-operation inspection.

Know and understand the pre-operation inspection before going on to the next section.

3. Always perform function tests prior to use.

4. Inspect the workplace.

5. Only use the machine as it was intended.

Function Test Fundamentals

The function tests are designed to discover any malfunctions before the machine is put into service. The operator must follow the step-by-step instructions to test all machine functions.

A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service. Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications.

After repairs are completed, the operator must perform a pre-operation inspection and function tests again before putting the machine into service.

Inspections

Function Tests

- 1 Select a test area that is firm, level and free of obstruction. Be sure there is no load on the forks or attachment.
- 2 Enter the cab and sit on the seat.
- 3 Adjust the seat and steering column, if needed.
- 4 Fasten and secure the seat belt around your waist.
- 5 Adjust the cab mounted mirror, the rear fish-eye mirror and the exterior right hand mirror, if required.
- 6 Be sure the parking brake is on and the transmission control is in neutral.
- 7 Start the engine. See Starting the Engine in the Operating Instructions section.

Test the Single Control Handle

- 8 Using the control handle, momentarily raise the boom and extend the boom, tilt the forks up and down.
 - ⊙ Result: All functions should operate smoothly.
- 9 Using the left roller switch, momentarily extend and retract the boom.
 - ⊙ Result: All functions should operate smoothly.
- 10 Using the right roller switch, momentarily rotate the slewing upper structure to the right and to the left.
 - ⊙ Result: All functions should operate smoothly.

Test the Dual Control Handles (if equipped)

- 11 Using the right control handle, momentarily raise the boom and extend the boom, tilt the forks up and down.
 - ⊙ Result: All functions should operate smoothly.
- 12 Using the left roller switch on the right control handle, momentarily extend and retract the boom.
 - ⊙ Result: All functions should operate smoothly.
- 13 Push and hold the lock/unlock enabling switch together with the white thumb switch of the left control handle, momentarily lock and unlock the attachment.
 - ⊙ Result: All functions should operate smoothly.
- 14 Using the left control handle, momentarily rotate the slewing upper structure to the right and to the left.
 - ⊙ Result: All functions should operate smoothly.

Inspections

Test the Steering

- 15 Rotate the steer selector to the right side to select four-wheel steer.
- 16 Check the steering operation by turning the steering wheel approximately $\frac{1}{4}$ turn in each direction.
 - ⊙ Result: The front wheels should turn in the same direction as the steering wheel. The rear wheels should turn in the opposite direction.
- 17 Straighten the wheels.
- 18 Rotate the steer selector to the middle position to select two-wheel steer.
- 19 Check the steering operation by turning the steering wheel approximately $\frac{1}{4}$ turn in each direction.
 - ⊙ Result: The front wheels should turn in the same direction as the steering wheel. The rear wheels should not turn.
- 20 Straighten the wheels.
- 21 Rotate the steer selector to the left to select crab steer.
- 22 Check the steering operation by turning the steering wheel approximately $\frac{1}{4}$ turn in each direction.
 - ⊙ Result: The front wheels and the rear wheels should turn in the same direction as the steering wheel.

Test the Transmission and Brakes

- 23 Be sure the boom is fully lowered and retracted.
- 24 Step on the brake pedal. Push the top of the parking brake switch to turn it off.
- 25 Move the transmission control lever to the forward direction. Push down lightly on the accelerator pedal to increase the RPM's and slowly let up on the brake pedal. As soon as the machine starts to move, push the brake pedal.
 - ⊙ Result: The machine should move forward, and then come to an abrupt stop.
- 26 Move the transmission control lever to the reverse direction. Push down lightly on the accelerator pedal to increase the RPM's and slowly let up on the brake pedal. As soon as the machine starts to move, push the brake pedal.
 - ⊙ Result: The machine should move in reverse, and then come to an abrupt stop. The back-up alarm should sound when the transmission control lever is in reverse.
- 27 Move the transmission control lever to neutral.
- 28 Push the bottom of the parking brake switch.
 - ⊙ Result: The red parking brake indicator light should come on, indicating the parking brake is on.
- 29 Move the transmission control lever forward, and then in reverse while increasing the RPM's with the accelerator pedal.
 - ⊙ Result: The machine should not move.

Inspections

Test the Parking Brake

- 30 Push the bottom of the rocker switch to turn the parking brake on: the parking brake warning light should come on.
- 31 Push down lightly on the accelerator pedal.
- ⊙ Result: The machine should not move .

Test the Rear Axle Lock

- 32 Raise the boom above 50°.
- 33 Rotate the slewing upper structure more than 10° (the Load Limiting display shows "TURRET NOT ALIGNED").
- 34 Place transmission into gear
- ⊙ Result: The machine should not move
- 35 Operate the frame levelling function in both directions.
- ⊙ Result: The frame levelling function should not operate.

Test the Outriggers

- 36 Push the top of each outriggers switch and fully extend and lower the outriggers. Push the bottom of each outrigger switch to fully raise and retract the outriggers.
- ⊙ Result: The outriggers should operate smoothly and in the expected direction.

Test the Outriggers Cutout

- 37 Raise the boom over 2 meters . Attempt to deploy or retract outriggers
- ⊙ Result: The outriggers should not work.

Test the Road Transfer Mode

- 38 Set the steer select switch to road transfer mode.
- 39 Attempt to: operate the boom, rotate the slewing upper structure and extend/lower the outriggers functions.
- ⊙ Result: None of these functions should operate.

Test the Levelling Cutout (if equipped)

- 40 Raise the boom over 2 meters.
- 41 Put the transmission control lever in neutral.
- 42 Set parking brake.
- ⚠ Slowly level the machine to the left and to the right.
- ⊙ Result: The levelling function should not operate.

Test the Lights

- 43 Verify that all equipped working and road lights are functional.

Test the Load Limiting System

- 44 Load a known weight of approximately 1000 kg.
- 45 Raise the boom about 30 cm above the ground.
- 46 Extend the boom and check if the system enters the alarm mode once it has reached the distance as indicated in the load charts for the attachment fitted to the machine.
- ⊙ Result: the system alarm mode should sound.

Inspections

Test the Joystick Enabling Function Switch

- 47 Operate the joystick without pressing this button.
- ⊙ Result: the joystick shall not activate any movement.

Test the Emergency Stop Push button

- 48 Press the Emergency Stop Push button down during a movement.
- ⊙ Result: the movements shall stop and engine should shut down.

Test the Emergency Pump (if equipped)

- 49 Set the ignition switch to position I
- 50 Press the emergency stop push button
- 51 Press the Emergency Pump switch for some seconds.
- 52 Engage any of the manual levers while pressing the Emergency Pump switch.
- ⊙ Result: the corresponding movement of the machine will indicate the Emergency Pump is working properly.

Test the Seat Switch

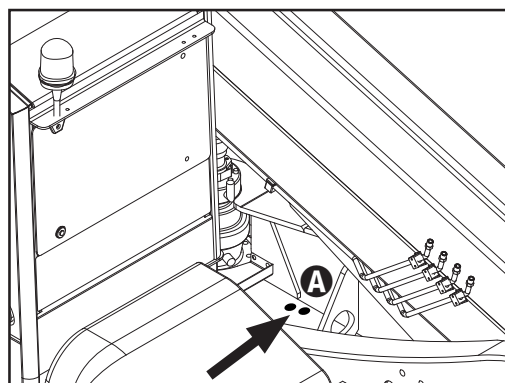
- 53 Do not sit on the drive seat.
- 54 Place transmission into either 1st or 2nd gear.
- 55 Release parking and service brakes.
- 56 Push down lightly on the accelerator pedal.
- ⊙ Result: the machine shall not move.

Test the Outriggers Sensors

- 57 Lower or raise all the outriggers.
- ⊙ Result: the load limiting display will accordingly change the scale of the admissible payloads.

Test the Slewing Upper Structure Proximity Switches

- 58 Raise the boom over 20°.
- 59 Rotate the Slewing Upper Structure until the writing "ALIGNED TURRET" appears on the 8th row of the Load Limiting display.
- ⊙ Result: the two proximity switches yellow leds **A** should come on.



Test the Chassis Levelling (if equipped)

- 60 Raise the boom over 20°.
- 61 Attempt to level the machine pressing the chassis levelling switch
- ⊙ Result: The levelling function should not work.



Do Not Operate Unless:

- ☒ You learn and practice the principles of safe machine operation contained in this operator's manual.

1. Avoid hazardous situations.

2. Always perform a pre-operation inspection.

Know and understand the pre-operation inspection before going on to the next section.

3. Always perform function tests prior to use.

4. Inspect the workplace.

5. Only use the machine as it was intended.

Workplace Inspection Fundamentals

The workplace inspection helps the operator determine if the workplace is suitable for safe machine operation. It should be performed by the operator prior to moving the machine to the workplace.

It is the operator's responsibility to read and remember the workplace hazards, then watch for and avoid them while moving, setting up and operating the machine.

Inspections

Workplace Inspection Checklist

Be aware of and avoid the following hazardous situations:

- ☐ drop-offs or holes
- ☐ bumps, floor obstructions or debris
- ☐ sloped surfaces
- ☐ unstable or slippery surfaces
- ☐ overhead obstructions and high voltage conductors
- ☐ hazardous locations
- ☐ inadequate surface support to withstand all load forces imposed by the machine
- ☐ wind and weather conditions
- ☐ the presence of unauthorized personnel
- ☐ other possible unsafe conditions

Inspections

Inspection for Decals

Determine whether the decals on your machine have words or symbols. Use the appropriate inspection to verify that all decals are legible and in place.

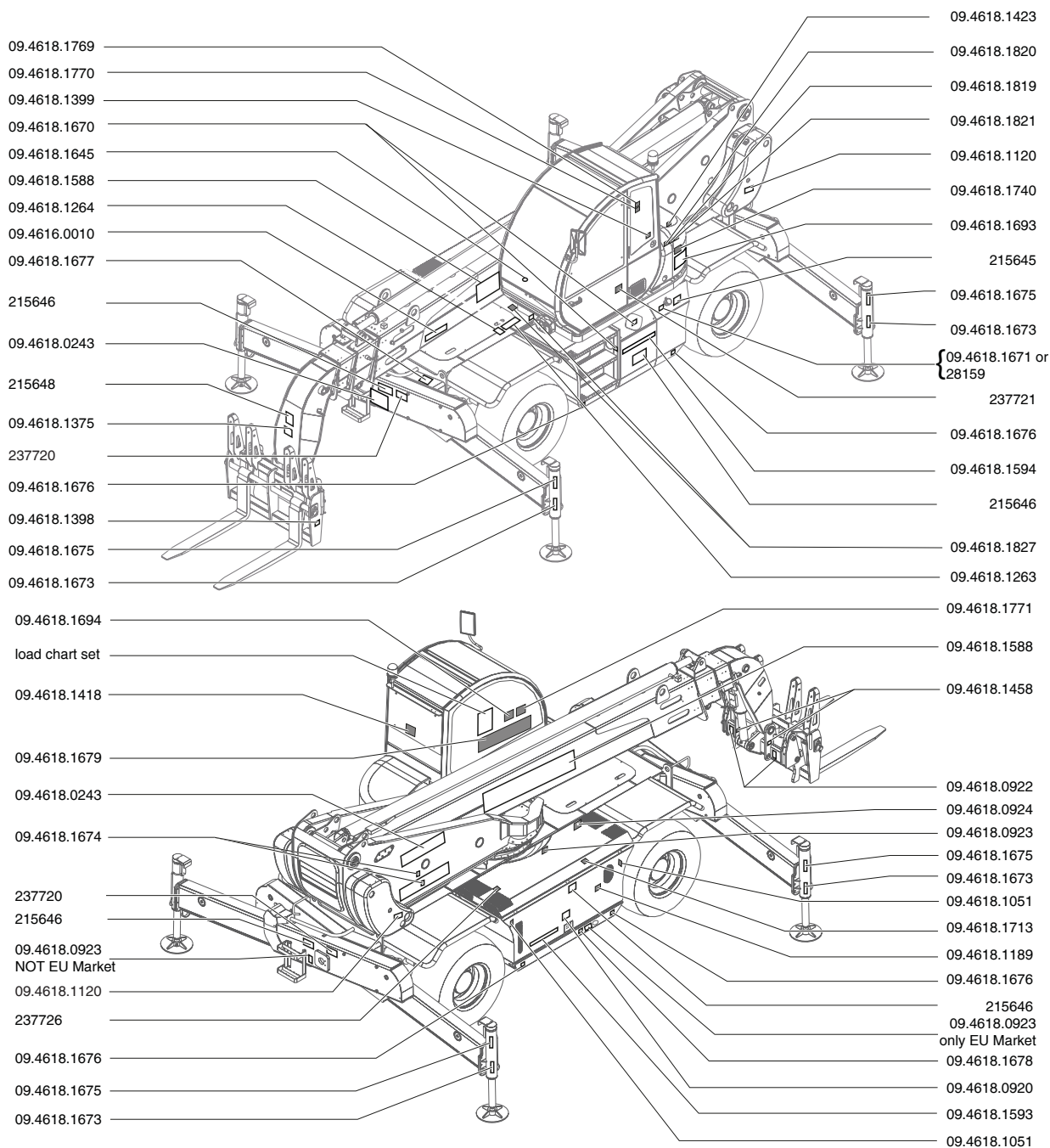
Part No.	Decal Description	Qty
215645	Danger – Explosion/Burn Hazard, Fueling	1
215646	Warning – Electrocution Hazard	3
215648	Danger - No Riders	1
237720	Warning – Crush Hazard, Moving Machine	2
237721	Warning – Dress seat Belt	1
237726	Warning – Burn Hazard	1
09.4618.0010	Label – 5000 kg	1
09.4618.0243	Cosmetic - Genie	2
09.4618.0920	Warning – Engine Compartment	1
09.4618.0922	Warning – Crush Hazard	2
09.4618.0924	Danger – Explosion/Burn Hazard	1
09.4618.0923	Warning – Burn Hazard, Hot Parts	3
09.4618.1051	Label – Engine Compartment Opening	2
09.4618.1120	Warning – Crush Hazard, Moving Parts	2
09.4618.1189	Label - Test Ports	1
09.4618.1263	Label - Slewing Upper Structure Mark	1
09.4618.1264	Label - Chassis Mark	1
09.4618.1375	Warning - Tip Over, Respect Capacity	1
09.4618.1398	Label - Attachment Locking Pin	1
09.4618.1399	Label - Door Unlock	1
09.4618.1418	Label - Emergency Exit	1
09.4618.1419	Label - Naturelle Hydraulic Oil	1
09.4618.1423	Danger – Explosion/Burn Hazard	1
09.4618.1456	Label - Left Control Lever	1
09.4618.1457	Label - Right Control Lever with Left Control Lever	1

Part No.	Decal Description	Qty
09.4618.1458	Warning - Tip Over, Respect Capacity	2
09.4618.1588	Cosmetic - Genie GTH-5021 R	2
09.4618.1593	Cosmetic - Genie GTH-5021 R	1
09.4618.1594	Cosmetic - Genie GTH-5021 R	1
09.4618.1645	Label - Load Limiting System Disabling	1
09.4618.1670	Label - Hydraulic Oil	2
09.4618.1671	Label - ULSD Fuel (only for EU Market)	1
28159	Label - Diesel (for NOT EU Market)	1
09.4618.1673	Warning - Crush Hazard, Outriggers	4
09.4618.1674	Warning - Crush Hazard, Safety Collar	2
09.4618.1675	Warning - Tip Over, Outriggers Pmax	4
09.4618.1676	Label - Tyre Pressure 7.5 bar	4
09.4618.1677	Label - Anchoring & Lifting	1
09.4618.1678	Label - Cut-off Switch	1
09.4618.1679	Warning - 7 decals	1
09.4618.1693	Cosmetic - Genie	1
09.4618.1694	Label - Right Control Lever	1
09.4618.1695	Label - Right Control Lever with Lock/Unlock	1
09.4618.1713	Warning - Burn Hazard	1
09.4618.1740	Label - Mainvalve Manual Use	1
09.4618.1769	Label - Lock	1
09.4618.1770	Label - Unlock	1
09.4618.1771	Label - Sound Level 103 dB	1
09.4618.1819	Label - TP1 Testing Port	1
09.4618.1820	Label - TP5 Testing Port	1
09.4618.1821	Label - TP8 Testing Port	1
09.4618.1642	Label - Load Chart Fork Front	1

Inspections

Part No.	Decal Description	Qty
09.4618.1644	Label - Load Chart Fork Side	1
09.4618.1643	Label - Load Chart Fork 360° on Outriggers	1
09.4618.1696	Label - Load Chart Hook 360° on Outriggers	1
09.4618.1697	Label - Load Chart Hook Front	1
09.4618.1698	Label - Load Chart Hook Side	1
09.4618.1699	Label - Load Chart 900 kg Jib 360° on Outriggers	1
09.4618.1700	Label - Load Chart 900 kg Jib Front	1
09.4618.1701	Label - Load Chart 900 kg Jib Side	1
09.4618.1702	Label - Load Chart 2000 kg Jib 360° on Outriggers	1
09.4618.1703	Label - Load Chart 2000 kg Jib Front	1
09.4618.1704	Label - Load Chart 2000 kg Jib Side	1
09.4618.1705	Label - Load Chart 4000 kg Winch 360° on Outriggers	1
09.4618.1706	Label - Load Chart 4000 kg Winch Front	1
09.4618.1707	Label - Load Chart 4000 kg Winch Side	1
09.4618.1708	Label - Load Chart Bucket 360° on Outriggers	1
09.4618.1709	Label - Load Chart Bucket Front	1
09.4618.1710	Label - Load Chart Bucket Side	1
09.4618.1711	Label - Load Chart 3P700 REM4400 Manplatform on Outriggers (for NOT EU Market)	1
09.4618.1712	Label - Load Chart 2P300 F Manplatform on Outriggers (for NOT EU Market)	1
09.4618.1827	Label - Do not use high pressure	2

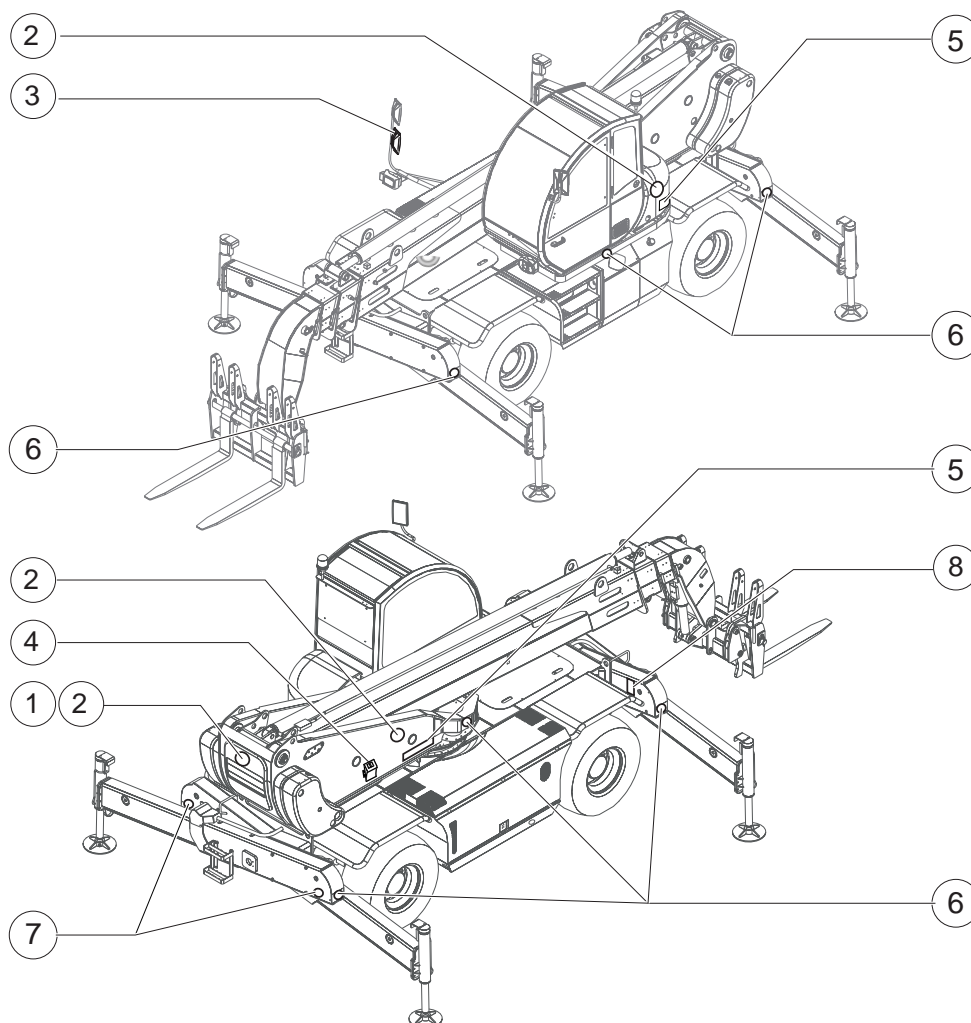
Inspections



Shading indicates decal is hidden from view, i.e. under covers

Inspections

Inspection for Road Homologation Configuration



Pos.	Part Number	TUV	Spain	Switzerland	Italy
1	09.4618.1489		Max Speed 32km/h		
2	09.4618.0339	Max Speed 20km/h			
3	07.0723.0042	Rear Mirror			
4	09.0803.0081	Wheel Chock			
5	09.4618.0276	Reflecting Yellow Decal			
6	56.0010.0020	Orange Reflector			
7	56.0010.0029	Red Reflector			
8	09.4616.0114			Homologation Plate	
8	09.4616.0000				Homologation Plate

Operating Instructions



Do Not Operate Unless:

- ☑ You learn and practice the principles of safe machine operation contained in this operator's manual.
 - 1 Avoid hazardous situations.
 - 2 Always perform a pre-operation inspection.
 - 3 Always perform function tests prior to use.
 - 4 Inspect the workplace.
 - 5 Always wear the seat belt before operating the machine.
 - 6 **Only use the machine as it was intended.**

Fundamentals

The Operating Instructions section provides instructions for each aspect of machine operation. It is the operator's responsibility to follow all the safety rules and instructions in the operator's, safety and responsibilities manuals.

A variable reach rough terrain forklift truck is defined as a wheeled type truck designated primarily as a fork truck with a pivoted boom, which may be equipped with attachments for lifting material. Using it for any other purpose is unsafe and dangerous.

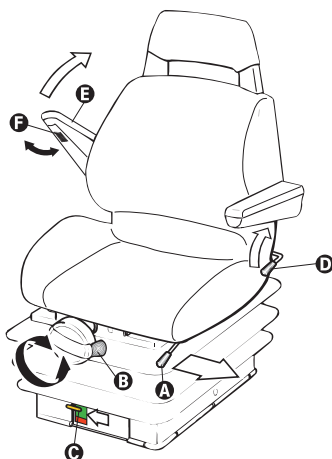
Only trained and authorized personnel should be permitted to operate a machine. If more than one operator is expected to use a machine at different times in the same work shift, they must all be qualified operators and are all expected to follow all safety rules and instructions in the operator's, safety and responsibilities manuals. That means every new operator should perform a pre-operation inspection, function tests, and a workplace inspection before using the machine.

Additionally, everyone working on or near the product also needs to be familiar with the applicable safety precautions.

Operating Instructions

Adjusting the Seat

Standard Seat



Move the lever **A** and slide the seat forward or backward. Release the bar and make sure the seat locks in position.

Rotate the knob **B** clockwise or counter-clockwise until reaching the desired springing. Once you are correctly seated check that the yellow indicator **C** is in the green field.

Operate lever **D**, press your back firmly against the backrest and put the backrest at the angle you wish, then release the lever.

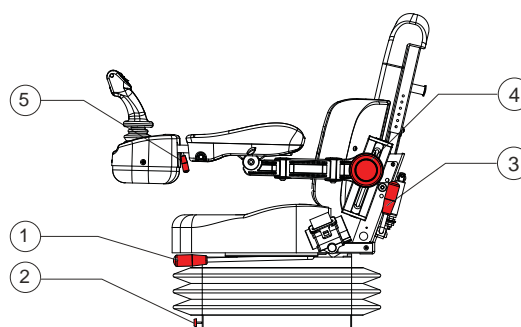
Raise armrest **E** and turn wheel **F** to put the armrest at the height you want.

⚠ The seat is for one person only.

Don't adjust the seat when the machine is moving.

Comfort Seat (if equipped)

(part number 58.2513.1088)



Move the lever **1** and slide the seat forward or backward. Release the bar and make sure the seat locks in position.

Push or pull the height adjustment **2** to bring your thigh parallel to the seat cushion.

Operate lever **3**, press your back firmly against the backrest and put the backrest at the angle you wish, then release the lever.

Rotate the knob **4** to put the armrest at the height you want.

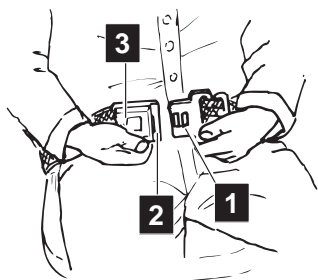
Move the lever **5** and put the joystick holder at the position you want.

⚠ The seat is for one person only.

Don't adjust the seat when the machine is moving.

Operating Instructions

Fastening the Seat Belts



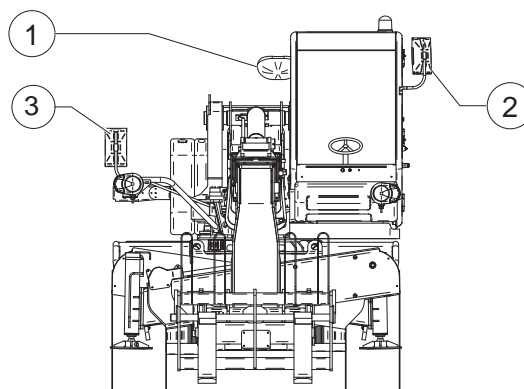
Sit correctly in the driving seat; then:

- The safety belts are equipped with reel retractor.
- To fasten the belt, pull tab 1 and push it into buckle 2.
- To release the belt, push button 3 and remove the tab from the buckle.
- Make sure that the buckle is correctly located at the hip point and not on the stomach.
- Operate the end adjusters to reach the length you wish and make sure the buckle is always in the middle.

Adjusting the Rear View Mirrors

The machine is fitted with three rear view mirrors. To adjust their positions, manually rotate them to the position(s) which provides optimal visibility.

1. Allows checking the area behind the machine and on the right-hand side.
2. Allows checking the area behind the machine and on the left-hand side.
3. Allows checking the area behind the machine.



Operating Instructions

Parking Brake

Use the parking brake switch to apply the parking brake before raising the boom or leaving the machine.

Always engage the parking brake before rising from the seat, if not the Load Limiting system will sound an alarm.

Push the bottom of the rocker switch to turn the parking brake on.

Push the top of the switch to turn the parking brake off.

Brake Pedal

Use the brake pedal to control the machine speed and to stop the machine motion.

Push and hold the brake pedal to stop the machine.

Push and release the brake pedal to control the machine speed.

Starting the Engine

1. Be sure the parking brake is set and the transmission control lever is in the neutral position.
2. Insert the key in the ignition switch.
3. Turn the key until the engine starts.

If the engine fails to start after 30 seconds of cranking, determine the cause and repair any malfunction. Wait 20 seconds before trying to start again.

Starting in Cold Condition

In cold conditions, 20°F / -6°C and below, warm the engine for 5 minutes before operating to prevent hydraulic system damage. In extreme cold conditions, 0°F / -18°C and below, machines should be equipped with optional cold start kits. Attempting to start the engine when temperatures are below 0°F / -18°C may require the use of a booster battery.

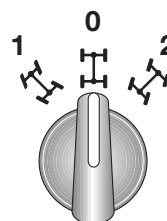
Steer Select

⚠ When the slewing upper structure is slewed in rearward position, all the steering controls are reversed!

Do not realign the wheels while driving.

To align the rear wheels:

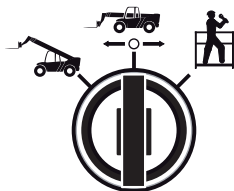
1. Start the engine, and move the Job-Site/Road/Platform Select to the job-site position.
2. Rotate the steering wheel until the wheels are in line with the length of the chassis and the writing "ALIGNED WHEELS" appears on the Load Limiting display.



Operating Instructions

Job-Site/Road/Platform Select

- Job-site mode: all machine functions are enabled;
- Road transfer mode: boom movement, turret rotation and outriggers movements are disabled; only the two-wheel steering mode is enabled;
- Platform mode: all controls from the cabin are disabled, operate the machine by the platform controls.



Raising and Lowering the Outriggers

Push the top of the rocker switch to extend/lower the outriggers. Push the bottom of the rocker switch to raise/retract the outrigger.

⚠ Before operating the outriggers, when the slewing structure is not aligned, verify that the outrigger control corresponds to the correct outrigger.

Levelling the chassis (if equipped)

Push the right side of the rocker switch to lower the right side of the chassis. Push the left side of the rocker switch to lower the left side of the chassis.

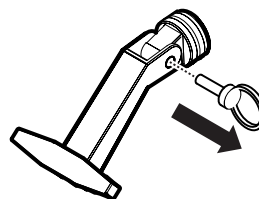
Operator Descent With 90° Slewing Upper Structure

When the slewing upper structure is rotated, the operator can descend from the machine through the two dedicated iron steps located at the front and rear of the chassis.

⚠ Always hold to the dedicated handholds to prevent falls or slips.

Emergency Exit

Extract the retaining levers and push out the window.



Operating Instructions

Slewing Upper Structure Locking Pin

This manual device is placed at the back of the cabin.

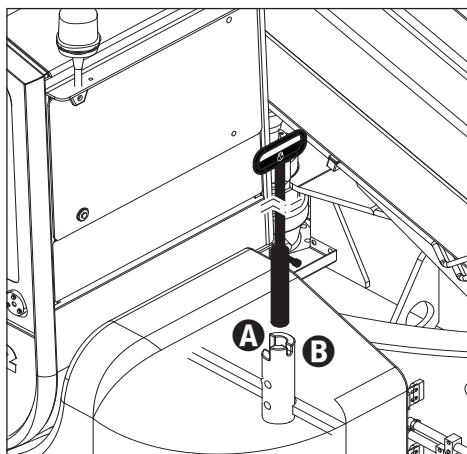
To lock/unlock the slewing upper structure rotation:

Rotation locking

1. Rotate the turret until the writing "TURRET ALIGNED" appears on the Load Limiting display.
2. Turn off the engine and engage the parking brake.
3. Working inside the cab, open the rear window and lift up the locking pin.
4. Set the device in position A to lock the slewing upper structure: operator will see the lock symbol on the top handle pin.

Rotation unlocking

1. Set the device in position B to unlock the slewing upper structure: operator will see the unlock symbol on the top handle pin.



Transmission Control

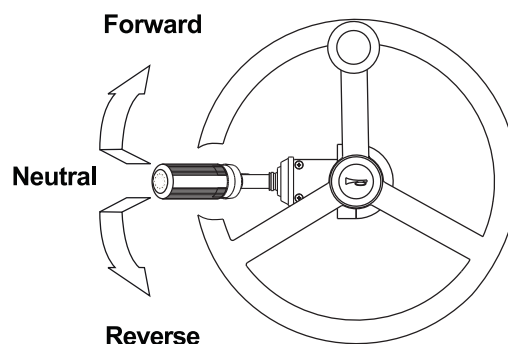
⚠ When the slewing upper structure is slewed in rearward position, all the steering controls are switched!

Use the transmission control lever to control the direction of machine travel.

To drive forward, move the transmission control lever toward you and move it up.

To drive in reverse, move the transmission control lever toward you and move it down.

To return to neutral, move the transmission control lever to the center position.



The speed engagement is signalled by the dedicated indicator lights, according to the engaged speed.

Operating Instructions

Axle Differential Lock

Use the axle differential lock switch to lock the axle differential and gain added traction in certain types of terrain such as sand, mud or snow.

Come to a complete stop before activating the axle differential lock. Do not lock the axle when the machine is moving.

Push and hold the switch to activate the axle differential lock. Release the switch to release the axle differential lock.

Rear Axle Lock

This function automatically starts in two situations:

1. the boom is raised above 50°;
2. the slewing upper structure is rotated more than 10° (the Load Limiting display shows "TURRET NOT ALIGNED").

The transmission will shift to neutral and the frame levelling function will not operate. Boom and fork functions continue to operate.

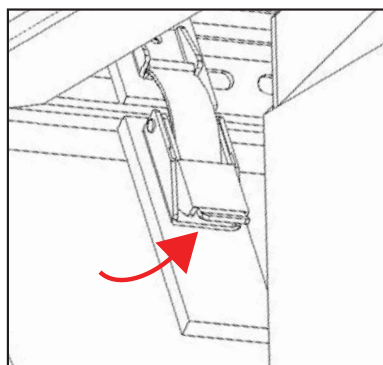
To unlock the rear axle and to operate the frame levelling function, lower the boom and align the slewing upper structure.

Access to the Engine Compartment

For any operation within the engine compartment, open the engine bonnet.

The bonnet is equipped with pneumatic shock absorbers which help raise and hold the bonnet in the raised position. To open the bonnet:

- Shut the engine down and put the parking brake.
- Turn the key to unlock and open the bonnet front part.
- Release the engine bonnet clasps placed to both sides of the bonnet upper part (see fig. below).



Operating Instructions

DPF Regeneration

When the Diesel Particulate Filter indicator light, 7, switches on the operator has to start the DPF regeneration following these instructions:

- i Select a safe outdoor parking location:
 - firm level surface
 - clear of obstruction and traffic
 - clear of flammable material
 - clear of explosive atmospheres
- ii Set the parking brake.
- iii Move the transmission control lever to neutral.
- iv Warm up the engine; the coolant temperature must reach at least 75°C.
- v Keep the engine on.
- vi Activate the DPF regeneration pushing on the DPF switch: high exhaust system temperature indicator light 9 switches on with a solid light and the engine revs up to 1,200 rpm.
- vii Keep clear of the exhaust muffler area.
- viii Don't leave the machine unattended.
- ix Signpost the area.
- x Machine must remain parked outdoors for 30 minutes approximately.
- xi In case of need, regeneration can be stopped by pushing the DPF switch and then restarted.

- xii Once the regeneration has been completed, the high exhaust system temperature indicator light 9, will switch off and the engine will run at idle.

- xiii During DPF regeneration:

- don't handle loads
- steer clear of explosive atmospheres
- steer clear of flammable material

When the DPF indicator light starts fast blinking and the Engine Critical Fault indicator light becomes a solid red light, the operator has to contact a qualified service technician.

Operating Instructions

Transporting a Load

Center the load on the forks. Position the load so that it is completely against the back of the fork frame.

The load should be kept as low to the ground as possible while traveling. Always move a loaded machine with the boom angle indicator at 0 degrees or less.

Tilt the forks back slightly to help keep the load secure.

Always bring the machine to a complete stop before applying the parking brake.

Raising and Placing a Load

The load chart in the cab shows the operating limits of a properly maintained and operated machine. To use the load chart, the operator must know the weight of the load, its load center and how far out and up it is to be placed.

This machine has more than one load chart. Be sure you are using the load chart that corresponds to the attachment on the machine, to the configuration of the outriggers and the slewing upper structure position.

If you determine that the weight of the load cannot be placed at the height and angle you want, these options can be used:

1. If you have not lowered the outriggers, lower the outriggers and use the load chart for outriggers down.

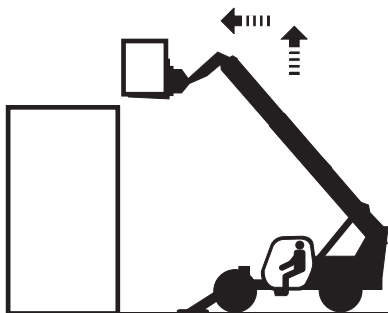
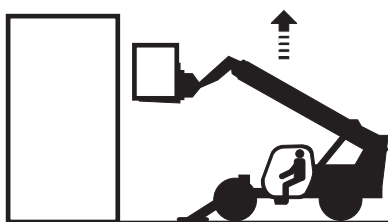
If the outriggers are down:

2. Move the machine closer to the loading or pick point so that the weight of the load will meet the load chart specifications.
3. Divide the load into smaller pieces so that each piece meets the load chart specifications.
4. Obtain a larger machine capable of handling the load within specifications.

Operating Instructions

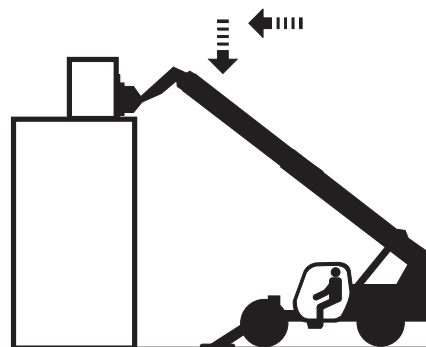
Placing the load

- 1 Travel to the desired work site and carefully stop the machine.
- 2 Put the transmission in neutral.
- 3 Apply the parking brake.
- 4 Unlock the slewing upper structure locking pin.
- 5 Lower the outriggers, if your configuration requires it.
- 6 Level the frame, if the left to right level indicator or the front to back level indicator is not at 0 degrees.
- 7 Gradually move the controller to raise and extend the boom to the required height.

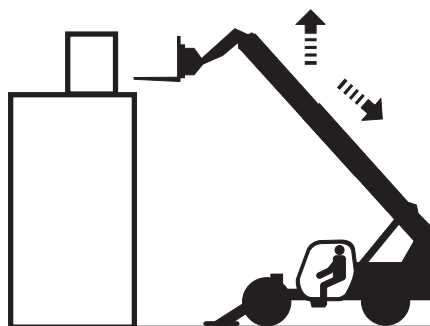


- 8 If required, rotate the slewing upper structure to reach the unloading position. On wheel configuration, the load limiting system will apply a different working envelope if the rotation exceed $\pm 10^\circ$. Refer to the correct load chart.

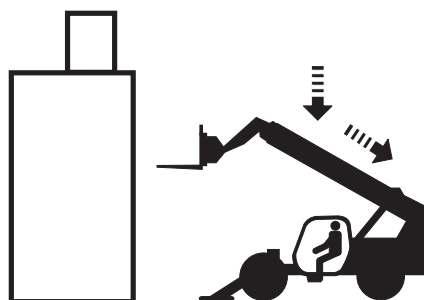
- 9 Gradually move the controller to lower and extend the boom into final position. Lower the load until the weight is completely off the forks. Do not apply a downward force with the forks.



- 10 Gradually move the controller to raise and retract the boom. This will bring the forks out of the load.

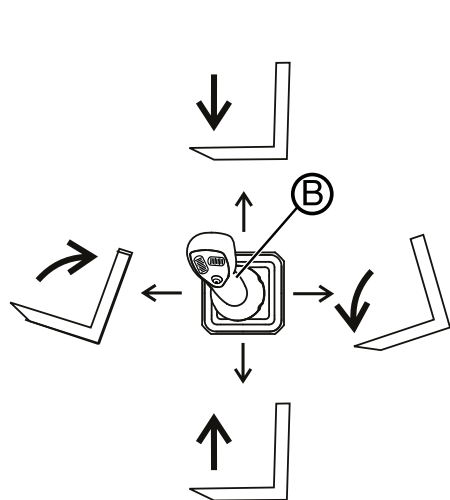


- 11 When the forks are clear of the load and the structure, the boom can be lowered and retracted.

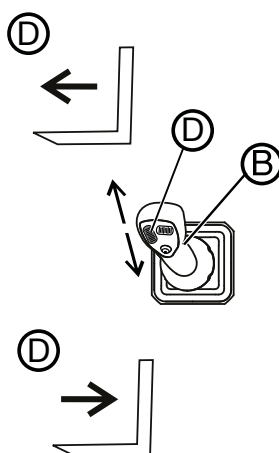


Operating Instructions

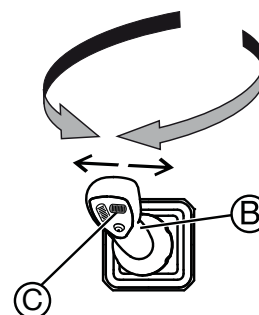
Controller movements - Single Control Handle



Control handle only
with red finger switch
(B)

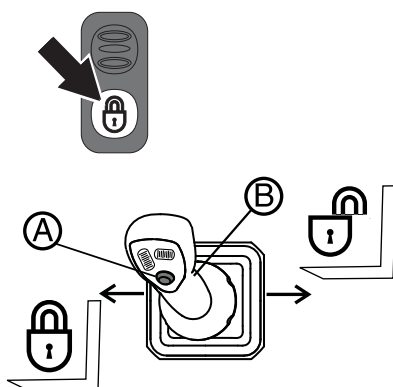


Control handle only
with red finger switch
(B) and with yellow
roller switch (D)



Control handle only
with red finger switch
(B) and with yellow
roller switch (C)

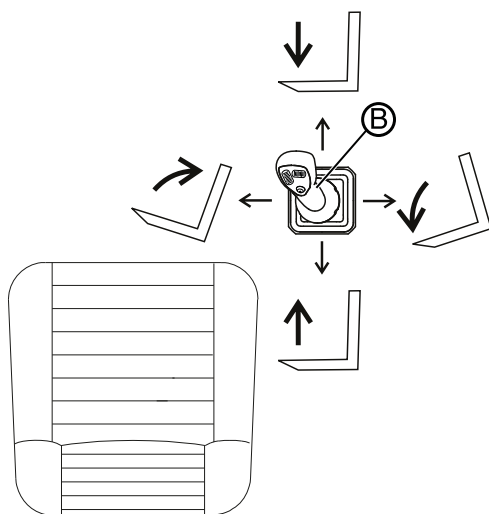
Hydraulic quick coupling (if equipped)



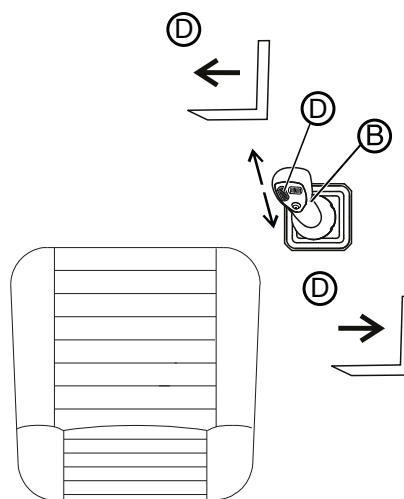
While pressing the hydraulic quick
coupling lock/unlock, control handle with
red finger switch (B) and with white thumb
switch (A)

Operating Instructions

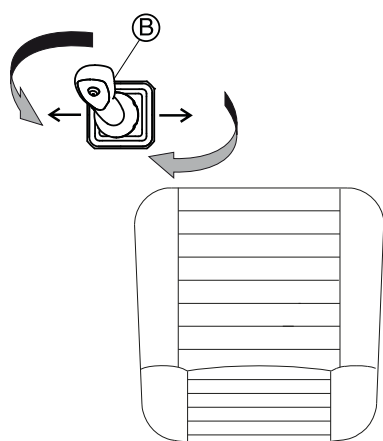
Controller movements - Dual Control Handles (if equipped)



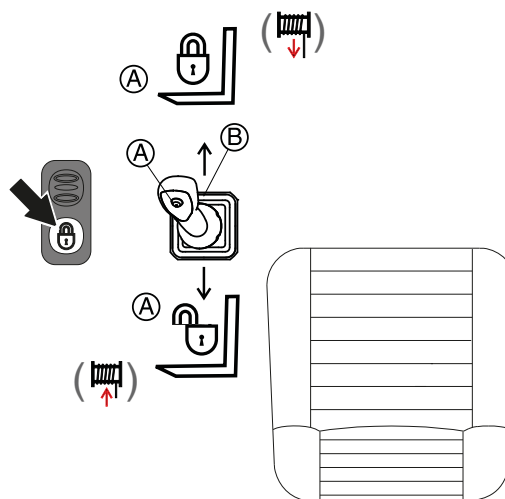
Control handle only
with red finger switch
(B)



Control handle only
with red finger switch
(B) and with yellow
roller switch (D)



Control handle only
with red finger switch
(B)



While pressing the hydraulic quick
coupling lock/unlock, control handle with
red finger switch (B) and with white thumb
switch (A)

Operating Instructions

Load Limiting Indicator

At the back of the driving place there is a unit which lets you manage the load limiting system of the machine.

The collected data, processed in relation to the attachment used, are continuously compared with the data stored in the program memory. The processing of these data results in three different situations which are displayed by the warning lights located at the left side of the display.

1 **Green LED ON**

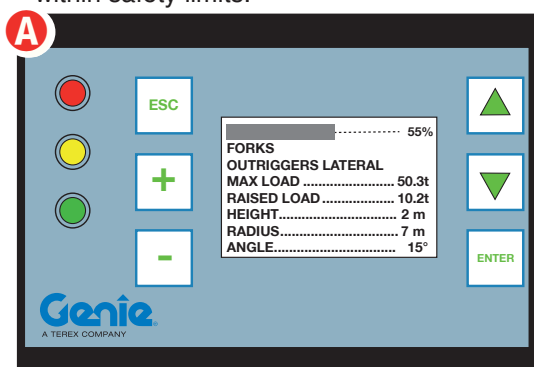
Stability condition. The raised load does not exceed 90% of maximum allowed load of the chart in that defined working position.

2 **Yellow LED ON**

Pre-alarm condition. The raised load exceeds 90% of maximum allowed load, but it is still inferior to it: the boom movements are slowed down and the acoustic alarm slowly beeps.

3 **Red LED ON**

Alarm condition. The raised load exceeds the maximum allowed load, the acoustic alarm quickly beeps and the machine motions are stopped, but for those allowing to return the load within safety limits.



The display is divided into three areas:

LED's area: Three LED's warn of the variation of the working condition:

- 1 **green LED** - machine stable
- 2 **yellow LED** - machine in pre-alarm
- 3 **red LED** - machine in alarm

Control Keys

ESC	To go back to the previous screen page
ENTER	To confirm and open the screen page linked
ARROWS	To scroll the lines up or down
PLUS (+)	Additional selection button
MINUS (-)	Additional selection button

Display, which is divided into 8 lines_ fig.A

1. Load percentage strip
2. Indicates the attachment used
3. Indicates the operating mode
4. Indicates the max load that can be raised
5. Indicates the weight raised for the system calibration
6. Indicates the boom height (it'll be = **0 meters** once the boom is fully lowered)
7. Indicates the distance of the load from the slewing axis and, in case of necessity, it displays the related warning message
8. Indicates the boom angle

When using an attachment other than those stated, but supplied by Terex Global GmbH, select the FORK in line 2.

Operation

- At the machine starting, the load limiting system runs an automatic check and the software data are displayed.
- Within 3/4 seconds, the list of attachments allowed is displayed: using the arrows, the operator has to select the right attachment and then press **ENTER** to confirm.
- Once the attachment has been selected, the display shows the *Standard Screen Page (fig.A)*.
- From this screen page, pushing **PLUS (+)** for some seconds, the operator can open the **UPPER LEVEL (B)** where other four sub-menus are displayed: one of these, **LANGUAGE** can be modified while the other three, **CLOCK**, **EXTENSION SENSOR** and **ANGLE SENSOR**, can only be consulted.

Operating Instructions

- Pressing **ESC**, go back to the *Standard Screen Page*.
- Press the two buttons **PLUS (+)** and **MINUS (-)** simultaneously to access to the *Diagnostic Screen Pages*. These pages can only be consulted. Use the **ARROWS** to pass from one page to another.

⚠ Before using the machine, make sure that the green LED is ON, and that the operating mode shown in line 3 and the attachment shown in line 2 are those actually used. The load limiting system must not be used to check the load to be handled: it has only been designed to alert the operator to unstable conditions of the machine during lifting. Such unstable conditions may also be caused by an abrupt operation of the control lever during the load handling.

Load Limiting Disable Selector

This selector allows to override the load limiting system in order to recover the machine:

- when it is stuck after the load limiting system has triggered;
- in case of main machine failures requesting the unlock of all the machine movements;

In order to prevent any misuse of this device (ie working outside the load and stability limits of the machine), the control system is provided with a timer (calibrated at 10 seconds) which, after this time is expired, restores automatically the lock-out functions.

The load limiting system disable selector is active only in the Job-site mode. In the Platform mode, the load limiting system cannot be deactivated.

Using The Load Charts

The load charts installed on the cab indicate the maximum allow load in relation to the boom extension, the slewing upper structure rotation, the outriggers use and the type of attachment. To operate under safe conditions, always refer to these charts.

The extension level of the boom can be checked with the help of the letters (A, B, C, D, E) painted on the same boom, while the actual boom inclination degrees are shown by the angle indicator.

Load Limit Warning Light (if equipped)

This device, fitted on the cab roof, is connected to the load limiting system and shows the same led sequence which appears on the load limiting display. When it reaches the red area, an acoustic alarm will sound.

Operating Instructions

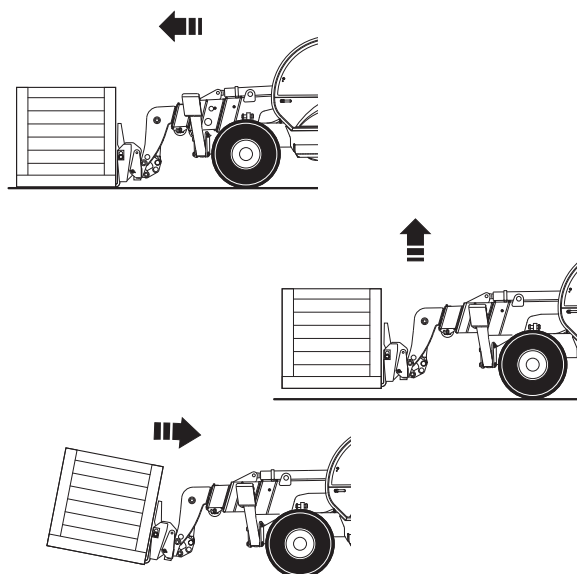
Quick Attach Instructions

Version with mechanical locking

- 1 Drive to the place where you will release the mounted attachment (when possible, a solid and sheltered site).
- 2 Disconnect the quick connectors of the attachment (if any).
- 3 Pull out the mechanical pin locking the attachment after removing the safety split-pin at its end.
- 4 Rest the attachment flat on the ground.
- 5 Pitch the attachment holding frame forward and lower the boom to release the attachment upper lock.
- 6 Move back with the machine and drive to the new attachment to be coupled.
- 7 Hold the frame pitched forward and hook the upper lock of the new attachment.
- 8 Retract and raise the attachment a small distance. It will center automatically on the quick coupling frame.
- 9 Refit mechanical locking pin fixing it with its safety split-pin.
- 10 Re-couple the connectors of the attachment (if any).

Version with hydraulic locking (*optional*)

1. Drive to the place where you will release the mounted attachment (when possible, a solid and sheltered site).
2. Disconnect the quick connectors of the attachment (if any).
3. Rest the attachment flat on the ground.
4. Press the Lock/Unlock Enabling Switch and keep it pressed up to the end of Step 5.
5. Free the attachment moving the control handle.
6. Pitch the attachment holding frame forward and lower the boom to release the attachment upper lock.
7. Move back with the machine and drive to the new attachment to be coupled.
8. Hold the frame pitched forward and hook the upper lock of the new attachment.
9. Retract and raise the attachment a small distance. It will center automatically on the quick coupling frame.
10. Coupling the attachment moving the control handle with the Lock/Unlock Enabling Switch.
11. Re-couple the connectors of the attachment (if any).



Operating Instructions

Jump Starting the Machine

Jump starting at the battery or battery replacement is required when the battery is discharged to the point where the battery will not crank the starter.

Never jump start the machine directly to the starter or the starter solenoid. Serious injury or death could result from the machine moving forward or backward.

To avoid personal injury when jump starting with another machine, be certain that the machines are not touching.

Never jump start a frozen battery as it will explode.

Keep sparks and flames away from the battery. Lead acid batteries generate explosive gases when charging. Wear safety glasses when working near batteries.

The booster battery must be 12V. The machine used for jump starting must have a negative ground electrical system.

To jump start the machine

- 1 Connect the positive (+) jumper cable to the positive (+) post of the discharged battery.
- 2 Connect the other end of the same jumper cable to the positive (+) post of the booster battery.
- 3 Connect one end of the second jumper cable to the negative (-) post of the booster battery.
- 4 Make the final cable connection to the engine block or the furthest ground point away from the battery.
- 5 Start the engine.

Driving on a slope

When the machine is loaded, always travel with the load uphill. When the machine is unloaded, travel with the forks or attachment downhill.

On steep terrain, drive only up and down hill, and always keep the machine in gear. Do not turn across slope when machine is traveling up or down a slope.

Limit travel path and speed according to the condition of the ground surface, traction, slope, location of personnel and any other factors which may create a hazard. Never drive the machine unless the mast and equipment are in their proper travel position.

Whether a machine will tip over during dynamic machine operation involves many variables that need to be considered. Among these are pavement/ground conditions, stability and slope, as well as machine equipment, operator skill, load position, tire inflation, machine speed, etc.

Additionally, tip over of a machine is dependent in large part upon operator inputs such as the speed and smoothness of the operation as well as the position of the attachment and its load.

Construction sites and roads will frequently change slope from place to place, can be hard and soft, and change due to the construction activities and weather.

Operators should be properly trained and use their best judgment and experience to take the necessary precautions to prevent tip over. Operators must assess the job-site variables and avoid exceeding the machine's (or operator's) capabilities for terrain and conditions.

Operating Instructions

Manual Controls

If the joystick control levers are malfunctioning or a function cannot be operated, it is possible to use the emergency controls at the main valve.

The main valve has 3 small control levers that operate the following functions:

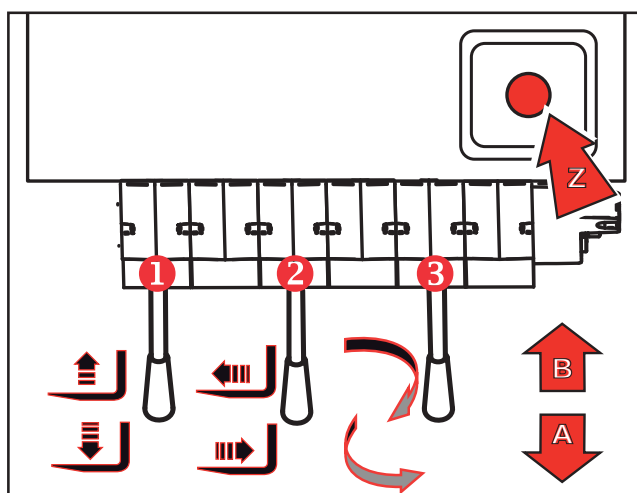
- 1 Lever 1 :
 - position A, boom down
 - position B, boom up
- 2 Lever 2
 - position A, boom telescope in
 - position B, boom telescope out
- 3 Lever 3
 - position A, slewing upper structure rotated counterclockwise
 - position B, slewing upper structure rotated clockwise

The manual controls can be used only if the machine is running or it is equipped with the emergency pump.

In order to operate the emergency pump with the manual controls, follow the instructions below:

- Press the emergency stop button in the cabin or in the platform.
- Open the main valve compartment at the back of the cabin to access to the main valve.
- Fit the control levers (supplied) to the elements of the main valve.
- Push Z switch to activate the emergency pump.
- Shift the lever of the main valve to the position corresponding to the movement you wish to obtain.

When operating the emergency controls in manual mode, the load limiting device is disabled.



Operating Instructions

Engine Condition Indicator

If the DPF Alert indicator light and/or the Engine Critical Fault indicator light switch on, contact service personnel.

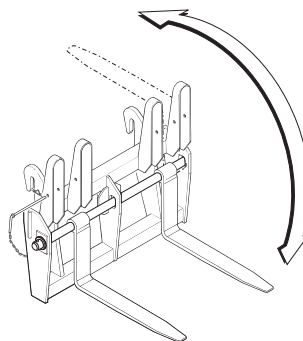
After Each Use

- 1 Select a safe parking location—firm level surface, clear of obstruction and traffic.
- 2 Retract the outriggers.
- 3 Retract and lower the boom to the stowed position.
- 4 Move the transmission control lever to neutral.
- 5 Set the parking brake.
- 6 Set the Slewing upper structure locking pin
- 7 Turn the key switch to the off position and remove the key to secure from unauthorized use.

Road or site transfer

When travelling on public roads, strictly obey the local or national road traffic regulations. Before traveling on public roads, ensure the following precautions are taken:

- Start the engine.
- Align the rear wheels with the chassis.
- Lock the slewing upper structure with the locking pin.
- Stow the floating forks as shown below



With the floating forks pitched back, do not move the fork pitching cylinder as the machine could suffer from damage.

- Retract and lower the boom.
- Set the *Job-site/Road/Platform* selector to “**Road mode**”.
- Make sure that lights, horn and turn signals are in working order.
- The transfer speed of the machine will depend on the engine rpm.

⚠ Driving on public loads is only allowed with an unloaded machine. Do not use the machine to tow trailers.

Operating Instructions

Moving a disabled machine

Tow the machine only when no alternative is possible, since this operation may result in serious damage to the transmission. When possible, repair the machine on site.

When the machine shall absolutely be towed:

1. Disable the parking brake.
2. Put the gear lever to neutral (see next page).
3. Select the two-wheel steer.
4. Connect a rigid draw bar to one of the two tie down points present on the front axle.
5. When possible, start the engine and use the hydraulic drive and the braking system.
6. Tow the machine for short distances and at low speed (less than 5 km/h).

To re-activate the negative brake:

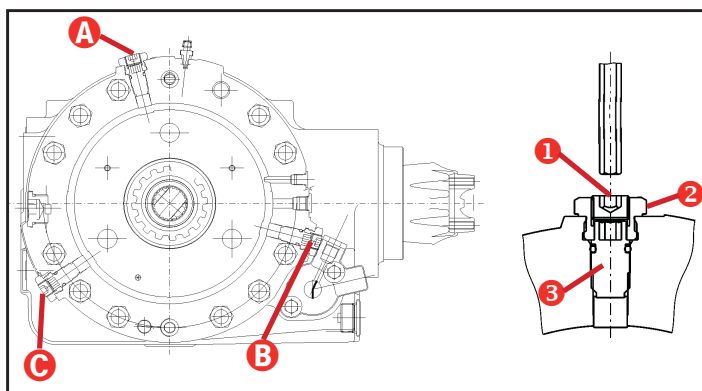
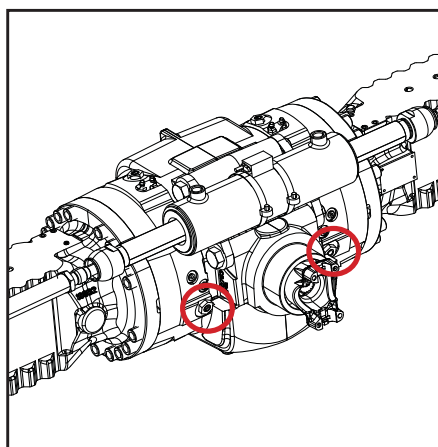
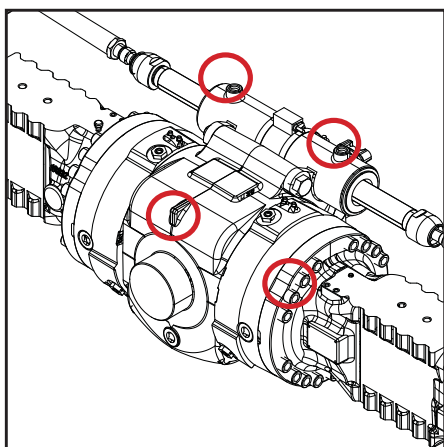
- Remove the lock screws (1) and unscrew all the brake release screws (3) on both sides of the front axle, until the end of stroke has been reached (until beating against the special screws 2). Note: do not move the special screws (2).
- Assemble the lock screws (1) to the special screws (2).
- Lock the special screws (2) at 30 Nm tightening torque and then lock screws (1) at 20 Nm tightening torque on both sides.

Parking brakes disable

To unlock the negative brake of a faulty machine:

- remove the three lock screws (1) from both sides of the front axle, using an 8mm hex key. Note: during this operation make sure to hold the special screws (2), using a 25 mm combination wrench.
- Screw in the brake release screws (3), 1/2 turn at a time, in sequence (A, B, C) until the torque drops off sharply (4÷5 turns).

Parking brakes enable



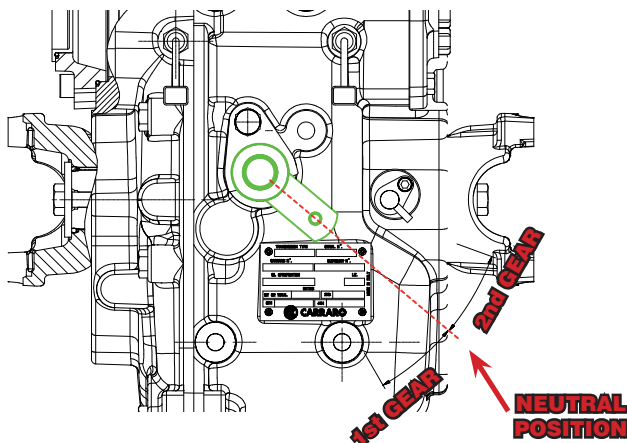
Operating Instructions

Setting the gear lever in neutral

Do not tow the machine without setting the mechanical gear lever to neutral position.

To set the gear lever to neutral:

- Disconnect the hydraulic hoses from the gear selecting cylinder.
- Using an adjustable self-locking pliers, set the dedicated lever in the position showed below.



Parking and Storage

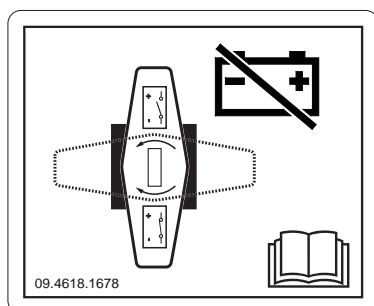
Short inactivity

Always park the machine in a safe way after a working day, a shift and at night.

Take all precautions to prevent damage to those persons who will approach the machine while stationary:

- Park the machine so that it does not hinder other operations.
- Retract and lower the boom fitted with attachment on the ground.
- Disengage the transmission and set the parking brake.
- Remove the key from the ignition switch and lock the cab door.

Disconnect the battery by turning the cut-out switch (placed inside the engine housing) to OFF position (see Inspection for Decals section).



Machine storage

In case of extended inactivity of the machine, follow the above precautions. Additionally:

- Wash the machine thoroughly. For a better cleaning, remove grills and protection casings.
- Carefully dry all machine parts by blowing some compressed air.
- Lubricate the machine thoroughly.
- Do a walk-around inspection and replace any worn or damaged part.
- Re-paint any worn or damaged part.
- Remove the battery, smear its terminals with vaseline and store it in a dry place. Battery can be used for other purposes. Otherwise, periodically check its charge level.
- Refuel the tank to prevent internal oxidation.
- Store the machine in a sheltered and well-ventilated place.
- Start the engine for about 10 minutes at least once a month.
- When weather is particularly cold, empty the radiator.

Always remember that the ordinary maintenance must be carried out even during the machine inactivity. Pay particular attention to the fluid levels and to those parts subject to ageing. Before re-starting the machine, carry out an extraordinary maintenance and carefully check all mechanical, hydraulic and electrical components.

Parking and Storage

Cleaning and washing the machine

Clean the machine in accordance with the following instructions:

- Remove any oil or grease traces with a dry solvent or a volatile mineral alcohol
- Before assembling a new part, remove any protection product (rust-preventer, grease, wax etc.).
- Remove any trace of rust from metal parts with some emery cloth before smearing the part with a protection product (rust-preventer, paint, oil etc.).

Do not use water at high pressure for washing the machine and especially the main valve, the solenoid valves, electrical parts and the electric rotating joint if equipped.

External washing

Before washing the machine, check that the engine is shut down and the doors and windows are closed. Do not, at any times, use fuel to clean the machine. Use water or some steam. In cold climates, dry the locks after washing or smear them with an antifreeze. Before using the machine again, check its conditions.

Internal washing

Wash the machine interior with some water and a sponge. Do not use water at high pressure. After washing, dry with a clean cloth.

Washing the engine

Before washing the engine, protect the air intake filter to prevent water from entering the circuit.

⚠ If the machine shall be used in a marine or equivalent environment, protect it against salt deposits with an adequate treatment to prevent rust formation.

Machine disposal

⚠ At the end of the machine life, call in a specialized firm to dispose of it in compliance with the local or national regulations.

Battery disposal

⚠ Used lead-acid batteries cannot be disposed of as normal industrial solid wastes. Because of the presence of harmful substances, they must be collected, eliminated and/or recycled in accordance with the laws of the EU. Used batteries must be kept in a dry and confined place. Make sure the battery is dry and the cell plugs are tight. Place a sign on the battery to warn of not using it. If before disposal the battery is left in the open air, it will be necessary to dry, smear the box and the elements with a coat of grease and tighten the plugs. Do not rest the battery on the ground; it is always advisable to rest it on a pallet and cover it. The disposal of batteries shall be as rapid as possible.

Transport and Lifting Instructions



Observe and Obey:

- ☒ Genie provides this securement information as a recommendation. Drivers are solely responsible for making sure machines are properly secured and the correct trailer is selected pursuant to transportation regulations, other localized regulations, and their company policy.
- ☒ Genie customers needing to containerize any lift or Genie product should source a qualified freight forwarder with expertise in preparing, loading and securing construction and lifting equipment for international shipment.
- ☒ Only qualified operators should move the machine on or off the truck.
- ☒ The transport vehicle must be parked on a level surface.
- ☒ The transport vehicle must be secured to prevent rolling while the machine is being loaded.
- ☒ Before loading for transport, make sure the deck, ramps and machine tires are free of mud, snow and ice. Failure to do so could cause the machine to slide.
- ☒ Be sure the vehicle capacity, loading surfaces and chains or straps are sufficient to withstand the machine weight. Genie telehandlers are very heavy relative to their size. See the serial label for the machine weight. See the Inspections section for the serial label location.

Transport and Lifting Instructions

Securing to Truck or Trailer for Transit

Turn the key switch to the off position and remove the key before transporting.

Inspect the entire machine for loose or unsecured items.

Be sure the door and the door windows are latched and secured (if equipped).

Prior to loading, level the telehandler and retract the boom.

Retract the outriggers.

Lock the slewing upper structure.

Use a spotter to load and unload the telehandler. Keep the boom as low as possible when loading and unloading.

Set the parking brake.

Securing the Chassis

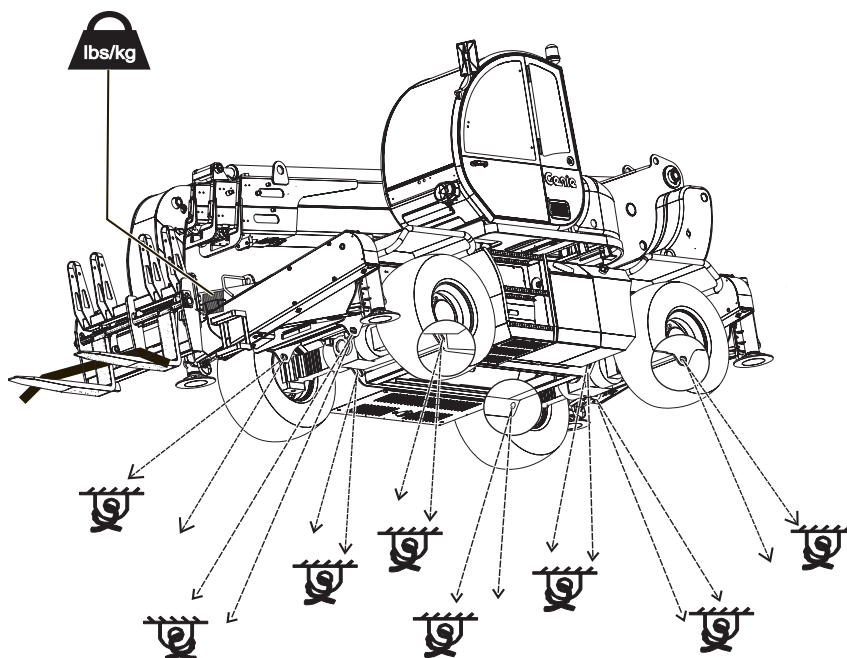
Use chains of ample load capacity.

Use a minimum of 6 chains. There are 8 tie down points, four on each side of the machine.

Fully lower the forks or attachment onto the truck bed. Secure the forks or attachment with a suitable strap or chain to prevent movement.

Adjust the rigging to prevent damage to the chains.

Note: For center of gravity information see lifting instructions section of this manual.



Transport and Lifting Instructions



Observe and Obey:

- ☑ Only qualified riggers should rig the machine.
- ☑ Only certified crane operators should lift the machine and only in accordance with the applicable crane regulations.
- ☑ Be sure the crane capacity, loading surfaces and straps or lines are sufficient to withstand the machine weight. See the serial label for the machine weight.

Lifting Instructions

Fully lower and retract the boom.

Retract the outriggers.

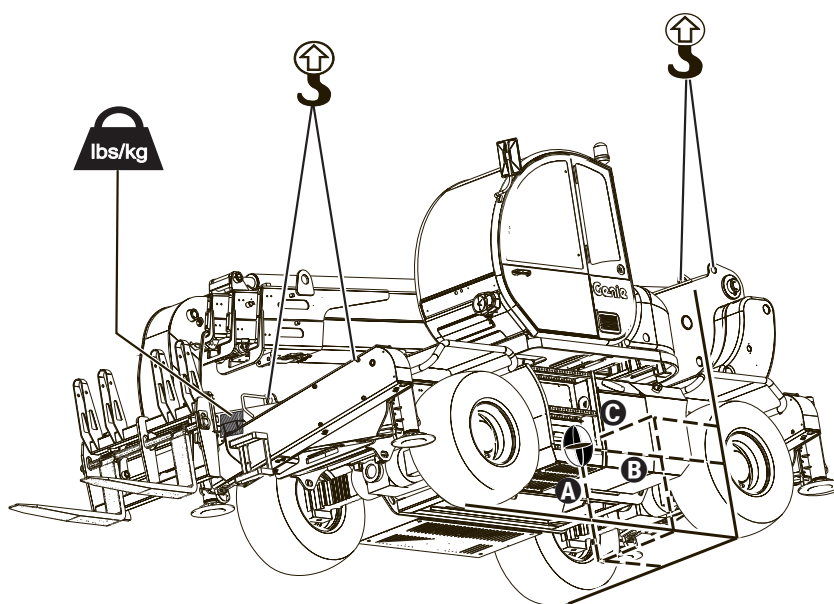
Lock the slewing upper structure.

Determine the center of gravity of your machine using the picture on this page.

Remove all loose items on the machine.

Attach the rigging only to the designated lifting points on the machine.

Adjust the rigging to prevent damage to the machine and to keep the machine level.



- A** 1280 mm Height from ground
- B** 1444 mm Rear Offset
- C** 874 mm Side Offset

Maintenance



Observe and Obey:

- ☑ Only routine maintenance items specified in this manual shall be performed by the operator.
- ☑ Scheduled maintenance inspections shall be completed by qualified service technicians, according to the manufacturer's specifications and the requirements specified in the responsibilities manual.

Maintenance Symbols Legend

The following symbols have been used in this manual to help communicate the intent of the instructions. When one or more of the symbols appear at the beginning of a maintenance procedure, it conveys the meaning below.



Indicates that tools will be required to perform this procedure.



Indicates that new parts will be required to perform this procedure.



Indicates that a cold engine will be required to perform this procedure.

Check the Tire Pressure



- ⚠ Tip-over hazard. An over-inflated tire can explode which may compromise machine stability and cause the machine to tip over.
- ⚠ Tip-over hazard. The use of temporary flat tire repair products may lead to tire failure which could compromise machine stability and cause the machine to tip over.
- ⚠ Bodily injury hazard. An over-inflated tire can explode and may cause death or serious injury.

Note: This procedure does not need to be performed on machines equipped with foam-filled tires.

- 1 Check each tire with an air pressure gauge. Add air as needed.

Wheel and Tire Specifications

Tire	18R x 19.5 TL XF
Rim	14 x 19.5
Wheel	10 holes DIN 70361
Tire pressure	7,5 bar (109 psi)

Maintenance

Check the Engine Oil Level



Maintaining the proper engine oil level is essential to good engine performance and service life. Operating the machine with an improper oil level can damage engine components.

Note: Check the oil level with the engine off and on a level surface.

1 Check the oil level dipstick. Add oil as needed.

Perkins 854E-E34TA

Oil type	SHELL RIMULA R4 L 15W-40
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Perkins 1104D-E44T

Oil type	SHELL RIMULA R4 L 15W-40
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Diesel Fuel Requirements

Satisfactory engine performance is dependent on the use of a good quality fuel. The use of a good quality fuel will give the following result: long engine life and acceptable exhaust emissions levels.

The diesel engine must be operated using only Ultra Low Sulfur Fuel. The sulphur content of this fuel must be lower than 15 PPM.

Fuel

Type	Ultra Low Sulfur Fuel (ULSD)	
Tank	205 L	54 gal

Check the Hydraulic Oil Level



Maintaining the hydraulic oil at the proper level is essential to machine operation. Improper hydraulic oil levels can damage hydraulic components. Daily checks allow the inspector to identify changes in oil level that might indicate the presence of hydraulic system problems.

- 1 Be sure that the engine is off, the frame is level and the boom is in the stowed position.
- 2 Visually inspect the sight gauge located on the left side of the hydraulic oil tank.
- ⊙ Result: The hydraulic oil level should be halfway in the sight gauge.
- 3 Add oil as needed. Do not overfill.

Hydraulic oil specifications

Hydraulic Oil type

GAZPROMNEFT HYDRAULIC HDZ 46

Maintenance

Check the Engine Coolant Level - Liquid Cooled Models



Maintaining the engine coolant at the proper level is essential to engine service life. Improper coolant level will affect the engine's cooling capability and damage engine components. Daily checks will allow the inspector to identify changes in coolant level that might indicate cooling system problems.

- 1 Visually inspect the sight gauge located on the top side of the radiator.
- ⊙ Result: The fluid level should be halfway in the sight gauge.

⚠ Bodily Injury Hazard. Fluids in the radiator are under pressure and extremely hot. Use caution when removing cap and adding fluids.

Check Mirrors

Maintaining the indirect visual aids is essential to workplace visibility.

1. Visually inspect all mirrors to ensure they are working properly and clean and free from debris.

Check the Battery



Proper battery condition is essential to good machine performance and operational safety. Improper fluid levels or damaged cables and connections can result in component damage and hazardous conditions.

⚠ Electrocutation hazard. Contact with hot or live circuits may result in death or serious injury. Remove all rings, watches and other jewellery.

⚠ Bodily injury hazard. Batteries contain acid. Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

- 1 Put on protective clothing and eye wear.
- 2 Be sure that the battery cable connections are tight and free of corrosion.
- 3 Be sure that the battery hold-down brackets are in place and secure.

Note: Adding terminal protectors and a corrosion preventative sealant will help eliminate the corrosion on the battery terminals and cables.

Maintenance

Scheduled Maintenance

Machines that have been out of service for more than three months must receive the quarterly inspection before they are put back into service.

Model
Serial number
Date
Hour meter
Machine owner
Inspected by (print)
Inspector signature
Inspector title
Inspector company
Instructions

- Make copies of this report to use for each inspection.
- Select the appropriate checklist(s) for the type of inspection to be performed.

<input type="checkbox"/>	Daily or 8 hours	
	Inspection:	A
<input type="checkbox"/>	Quarterly or 250 hours	
	Inspection:	A+B
<input type="checkbox"/>	Semi-annually or 500 hours	
	Inspection:	A+B+C
<input type="checkbox"/>	Annually or 1000 hours	
	Inspection:	A+B+C+D
<input type="checkbox"/>	2 Years or 2000 hours	
	Inspection:	A+B+C+D+E

- Place a check in the appropriate box after each inspection procedure is completed.
- Use the step-by-step procedures in this section to learn how to perform these inspections.
- If any inspection receives an "N", tag and remove the machine from service, repair and re-inspect it. After repair, place a check in the "R" box.

Checklist A		Y	N	R
A-1	Manuals and decals			
A-2	Pre-operation inspect			
A-3	Function tests			
A-4	Lubricate the boom			
A-5	Engine maintenance - Perkins models			
Perform after 40 hours:				
A-6	Emergency pump (if equipped)			
Perform after 50 hours:				
A-7	Axle maintenance			
Perform after 150 hours:				
A-8	Axle maintenance			

Interlocks Spare Parts	
LMI Display & Board	56.0016.0066
Enabling Function Switch on Joystick	07.0741.0012
Emergency Pump Switch	07.0703.0430
Emergency Stop Pushbutton	07.0703.0441
Seat Switch	07.0703.0484
Magnetic Micro Target	56.0012.0066
Load Pin	09.0802.0042

Maintenance

A-1

Inspect the Manuals and Decals

Genie specifications require that this procedure be performed every 8 hours or daily, whichever comes first.

Maintaining the operator's and safety manuals in good condition is essential to safe machine operation. Manuals are included with each machine and should be stored in the container provided in the operator's compartment. An illegible or missing manual will not provide safety and operational information necessary for a safe operating condition.

In addition, maintaining all of the safety and instructional decals in good condition is mandatory for safe machine operation. Decals alert operators and personnel to the many possible hazards associated with using this machine. They also provide users with operation and maintenance information. An illegible decal will fail to alert personnel of a procedure or hazard and could result in unsafe operating conditions.

- 1 Check to make sure that the operator's and safety manuals are present and complete in the storage container in the operator's compartment.
 - 2 Examine the pages of each manual to be sure that they are legible and in good condition.
- ⦿ Result: The operator's manual is appropriate for the machine and all manuals are legible and in good condition.
 - ⊗ Result: The operator's manual is not appropriate for the machine or all manuals are not in good condition or is illegible. Remove the machine from service until the manual is replaced.

- 3 Open the operator's manual to the decals inspection section. Carefully and thoroughly inspect all decals on the machine for legibility and damage.

- ⦿ Result: The machine is equipped with all required decals, and all decals are legible and in good condition.
- ⊗ Result: The machine is not equipped with all required decals, or one or more decals are illegible or in poor condition. Remove the machine from service until the decals are replaced.

- 4 Always return the manuals to the storage container after use.

Note: Contact your authorized Genie distributor or Genie Industries if replacement manuals or decals are needed.

Maintenance

A-2

Perform Pre-operation Inspection

Genie specifications require that this procedure be performed every 8 hours or daily, whichever comes first.

Completing a Pre-operation Inspection is essential to safe machine operation. The Pre-operation Inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests. The Pre-operation Inspection also serves to determine if routine maintenance procedures are required.

A-3

Perform Function Tests

Genie specifications require that this procedure be performed every 8 hours or daily, whichever comes first.

Completing the function tests is essential to safe machine operation. Function tests are designed to discover any malfunctions before the machine is put into service. A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service.

Maintenance

A-4

Lubricate the Boom



Genie specifications require that this procedure be performed every 8 hours or daily, whichever comes first.

Greasing the specified locations is essential for good machine performance and service life.

Operating the machine with little or no grease may cause the machine to perform poorly and continued use may cause component damage.

- 1 Fully extend and raise the boom, then retract the boom, checking to insure it operates smoothly. There should be a light film of lubricant on wear pad contact surfaces.
- ⊙ Result: Boom operates smoothly and a thin film of lubricant is visible. Proceed to step 5.
- ⊗ Result: Boom does not extend or retract smoothly and no lubricant is visible on wear pad contact surfaces. Proceed to step 2.
- 2 Apply a thin layer of grease to the underside of the number 3 boom tube where it makes contact with the number 2 boom tube lower wear pads.
- 3 Apply a thin layer of grease to the underside of the number 2 boom tube where it makes contact with the number 1 boom tube lower wear pads.
- 4 Lubricate the top and side boom tube wear pads.
- 5 Return the boom to the stowed position.

Grease Specification

PTFE INTERFLON FIN GREASE LS 2

Genie part number 09.4693.0000

A-5

Perform Engine Maintenance - Perkins Models



Note: Engine specifications require that this procedure be performed every 8 hours or daily, whichever comes first.

Engine oil level - check

Coolant level - check/add

Fuel system filter/water separator - drain

Engine tightness - check for leaks

Exhaust system - check for leaks

Required maintenance procedures and additional engine information is available in the *Perkins 1104D Operation and Maintenance Manual* (Perkins part number SEBU8172-02), *Perkins 854 Operation and Maintenance Manual* (Perkins part number SEBU8726-01).

Perkins 1104D-E Operation and Maintenance Manual

Genie part number 57.4700.0000

Perkins 854 Operation and Maintenance Manual

Genie part number 57.4700.0001

Maintenance

A-6

Emergency Pump Operation (if equipped)

- 1 Stop the engine.
 - 2 Press the red emergency stop button.
 - 3 Press the auxiliary pump on-off button and hold it pressed down.
- ⦿ Result: Operate the joystick to move the boom and verify that movement is performed.

A-7

Perform Axle Maintenance



Note: Axle specifications require that this procedure be performed after 50 hours.

Oil level - check/add

Required maintenance procedures and additional axle information is available in the *Carraro 26.32M Axle Maintenance and Repair Manual* (Carraro part number CA270015 - Front Axle, CA270016 - Rear Axle).

Carraro 26.32M Front Axle Maintenance and Repair Instructions

Genie part number 57.4700.0002
(Genie Instructions Library)

Carraro 26.32M Rear Axle Maintenance and Repair Instructions

Genie part number 57.4700.0003
(Genie Instructions Library)

Maintenance

A-8

Perform Axle Maintenance

Note: Axle specifications require that this one-time procedure be performed after 150 hours of operation.

Change axle oil

Clean magnetic oil plugs

Oil breather - clean

Grease axle (if required)

Required maintenance procedures and additional axle information is available in the *Carraro 26.32M Axle Maintenance and Repair Manual* (Carraro part number CA270015 - Front Axle, CA270016 - Rear Axle).

Carraro 26.32M Front Axle Maintenance and Repair Instructions

Genie part number 57.4700.0002
(Genie Instructions Library)

Carraro 26.32M Rear Axle Maintenance and Repair Instructions

Genie part number 57.4700.0003
(Genie Instructions Library)

Attachments

This machine can be equipped with several attachments.

Use only Genie approved attachments specified in this section.

Information about how to fit and replace attachments on the machine can be found in section "Quick Attach Instructions".

Genie Approved Attachments List:

- **Floating Forks**
(part number 55.0750.0082)
- **FEM3 Forks with Hydraulic SIDE-SHIFT +/- 100mm**
(part number 59.0601.5012)
- **UK Floating Forks L1200mm sect.100x65mm**
(part number 55.0750.0083)
- **Loading shovel 800 Lt**
(part number 59.0201.9008)
- **Concrete bucket 500 Lt manual discharge**
(part number 59.0401.2012)
- **Concrete bucket 500 Lt hydraulic discharge**
(part number 59.0401.2013)
- **Concrete bucket 800 Lt manual discharge**
(part number 59.0401.2014)
- **Concrete bucket 800 Lt hydraulic discharge**
(part number 59.0401.2015)
- **Concrete mixing bucket 500 Lt full hydraulic**
(part number 59.0401.2016)
- **Brick-holder basket**
(part number 59.0401.2017)
- **Fixed hook on plate**
(part number 59.0700.9007)
- **Mechanical jib 2m length/ 2000kg capacity**
(part number 59.0802.3016)
- **Mechanical jib 4m length/900kg capacity**
(part number 59.0802.3017)
- **Hydraulic jib, 4m length/900kg capacity**
(part number 59.0802.3018)
- **Hydraulic winch 4000 kg**
(part number 59.0901.9005)
- **Hydraulic winch 5000 kg**
(part number 59.0901.9008)
- **Fixed man-platform: 2P/300-F**
(part number 59.1111.6013)
- **Rotating and extendable man-platform: 3P/700-REM 4400 +/- 90°**
(part number 59.1111.6014)

Information for use of this attachment is described in the specific attachments operator's manual available on official Genie site www.genielift.com/en/service-support/manuals

Attachments

⚠ Work Platform Hazards

Work Area Safety

Use only a Genie approved personnel work platform.



Do not lift personnel with a telehandler unless it is equipped with an approved work platform.

The user or employer and the operator shall further investigate, and comply with, all applicable job-site, local, state, provincial, or federal rules, regulations, and standards related to the use of the telehandler with a work platform.

Read, understand and obey all warnings and instructions provided with the approved work platform.

The operator and the platform occupants must be instructed regarding the specific hazards associated with using the telehandler with the work platform, and utilize all means, including those provided by the user or employer, to avoid them.

Always perform a pre-operation inspection of the platform, per the Genie's instructions, prior to use.

If damage or any unauthorized variation from factory delivered condition is discovered, the platform must be tagged and removed from service.

Do not modify the platform without written approval by Genie.

Do not use the telehandler with a work platform attached for any purpose other than positioning the machine.

Platform Occupant Restraint Device

Personal protective equipment (PFPE) is required for all occupants of the work platform.



Occupants must wear a safety belt or harness in accordance with governmental regulations. Attach the lanyard to the anchor provided in the platform.

All PFPE must comply with applicable governmental regulations, and must be inspected and used in accordance with the PFPE manufacturer's instructions.

Telehandler Operation



Do not drive the telehandler when occupants are in the platform.

Attachments

⚠ Suspended Load Hazards

Work Area Safety

General Safety

Do not lift a suspended load without first understanding the local, state, federal, or provincial rules, standards and regulations related to the activity. Additional rules, standard and regulations may apply. Additional training may be required.

If a telehandler must be used to transport a load, the following precautions for the protection of the operator shall be taken.

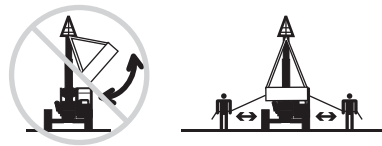
Read, understand and obey all warnings and instructions provided with the attachment that is approved for suspending loads.

Only a properly designed, tested and approved attachment should be used to carry a suspended load.

The telehandler load charts are designed for loads where the load center is stationary. As a suspended load moves, the load center can change. As a result, extreme caution in transporting and lifting, or placing, the load must be observed to minimize the potential for the load to move.

Overturning Hazards

Do not lift a suspended load without the proper and legible load capacity chart for the attachment/telehandler combination you are using.



Do not permit the load to swing freely. Always properly tether loads to restrict movement. Driving across grades, sudden starts, stops, and turns can cause the load to swing and create a hazard if not externally stabilized.

Keep the boom retracted as much as practical.

Do not lift suspended loads when wind speeds can cause an unsafe situation.

All movements of the load must be accomplished gradually and at the slowest practical speed to prevent the load from swinging.

Keep the heavy part of the load closest to the attachment.

Never drag or pull a load sideways.

Only lift a load vertically; do not pull a load horizontally as it could cause excessive swinging of the load.

The weight of all rigging (slings, shackles etc.) must be included as part of the load.

Attachments

Identify the proper lifting points of the load, taking into consideration the center of gravity and load stability.

Do not attempt to use the telehandler frame-levelling to compensate for a swinging load or to adjust the load after it has been raised.

Do not try to move fixed or obstructed loads.

Do not leave the telehandler unattended with a suspended load.

Keep the boom and load as low as practical while maintaining visibility in the direction of travel.

Do not exceed walking speed (2 mph / 3.2 km/h) with a suspended load.

Start, travel, turn and stop slowly to prevent the load from becoming unstable or swinging.

Do not use any controls to re-position the load when traveling. Come to a gradual and complete stop before attempting to re-position the load.

Do not attempt to cross inclines as the load center will move towards the tipping line, thereby reducing stability.

Only climb or descend inclines with extreme care as the load center will move towards the tipping line, thereby reducing stability.

Do not park on a slope.

When driving on a rise with loaded material, proceed in forward gear and travel with load in the lowest possible position.

When sloping downward with loaded material, proceed into reverse.

When driving on a rise with empty shovel, proceed into reverse.

When sloping downward with empty shovel, proceed in forward gear.

Do not allow suspended loads to oscillate.

Do not drag loads when they are hooked up.

A suspended load has a dynamic, and therefore an unpredictable effect on machine stability, operate with caution.

The fixed hook has been designed to support the load declared beside. The maximum payload corresponds to the nominal capacity rating of the handler on which it is installed and is indicated on the load charts supplied with the equipment.

Fall Hazards

Do not lift or suspend personnel.

Don't use the shovel for rising or transporting people.

Attachments

Collision Hazards

Be sure that the load is clear of any adjacent obstacles before lifting.

When visibility is or could be obstructed, near or at the load placement, the operator shall use alternative or additional means to safely lift the load, such as a qualified signal person.

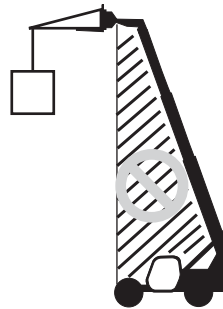
Signal persons must remain in constant communication (verbal or hand) and be in visual contact with the operator at all times.

Crush Hazards

Never allow the signal person to come between the suspended load and another object (such as the telehandler itself).

Before any maintenance on the mixing bucket, rest the bucket on the ground, stop the machine, remove the starter key and lock the cab door to prevent anybody from gaining access to the control panel.

Falling Object Hazards



Do not raise the load into the fall zone shown.

Do not operate the machine while people are under the load or in the fall zone.

Do not suspend loads using slings or chains from the forks or fork carriage.

Avoid lifting double tiered loads.

When loading round-shaped objects (as petrol drums, etc) bind them with straps or ropes and travel at reduced speed.

Attachments

Lifting a Suspended Load

Verify that landing point is level and can safely support the load.

Properly secure the attachment to the telehandler

Level the frame on the telehandler.

Tether the load to restrict movement.

Ask a signal person to assist with lifting the load if visibility will be obstructed at the point of operation.

Make sure that the signal person remains in constant communication and is in visual contact at all times.

With the boom retracted as far as practical, slowly and gradually raise the boom and load, making sure to keep the load and boom as low to the ground as practical.

Be sure that all boom and attachment movements are performed as slow as practical to avoid swinging of the load.

Travelling

Be sure that the path of travel is level and capable of supporting the telehandler with its load.

Keep the boom, and load, as low as practical while maintaining visibility in the direction of travel.

Ask a signal person to assist with your travel if visibility will be obstructed in the direction of travel.

Crush or Collision Hazard. Make sure that the signal person remains in constant communication and be in visual contact at all times.

Only make adjustments to the load after bringing the telehandler to a complete stop.

Start, stop, travel and turn slowly to prevent the load from becoming unstable or swinging.

Do not travel faster than walking speed (<2 mph / 3.2 km/h).

Attachments

Placing the Load

Ask a signal person to assist with placing the load if visibility will be obstructed at the point of operation.

Make sure that the signal person remains in constant communication and be in visual contact at all times.

Come to a complete stop near the landing point.

Set the parking brake and place the transmission into neutral.

Slowly, and gradually, place the load over the landing point and lower the load until it is safely supported.

Once the load has been landed, continue to lower the boom until the rigging and tethers can be removed.

Signal Person

A signal person is recommended when:

The point of operation, meaning the load travel or the area near or at load placement, is not in full view of the operator.










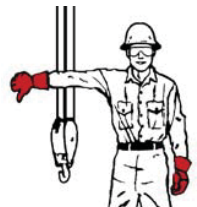

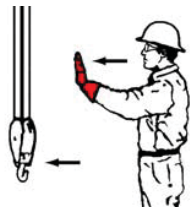


When the equipment is traveling, the view in the direction of travel is obstructed.

Due to site specific safety concerns, either the operator or the person handling the load determines that it is necessary.

Signal persons must remain in constant communication (verbal or hand) and be in visual contact with the operator at all times.

The hand signal chart below may be used as reference.

Attachments

				
STOP. With arm extended horizontally to the side, palm down, arm is swung back and forth.	EMERGENCY STOP. With both arms extended horizontally to the side, palms down, arms are swung back and forth.		HOIST. With upper arm extended to the side, forearm and index finger pointing straight up, hand and finger make small circles.	RAISE BOOM. With arm extended horizontally to the side, thumb points up with other fingers closed.
				
SWING. With arm extended horizontally, index finger points in direction that boom is to swing.	RETRACT TELESCOPING BOOM. With hands to the front at waist level, thumbs point at each other with other fingers closed.	RAISE THE BOOM AND LOWER THE LOAD. With arm extended horizontally to the side and thumb pointing up, fingers open and close while load movement is desired.	DOG EVERYTHING. Hands held together at waist level.	LOWER. With arm extended horizontally, index finger pointing down, hand and finger make small circles.
				
LOWER BOOM. With arm extended horizontally to the side, thumb points down with other fingers closed.	EXTENDED TELESCOPING BOOM. With hands to the front at waist level, thumbs point outward with other fingers closed.	TRAVEL/TOWER TRAVEL. With all fingers pointing up, arm is extended horizontally out and back to make a pushing motion in the direction of travel.	LOWER THE BOOM AND RAISE THE LOAD. With arm extended horizontally to the side and thumb pointing down, fingers open and close while load movement is desired.	MOVE SLOWLY. A hand is placed in front of the hand that is giving the action signal.

Specifications

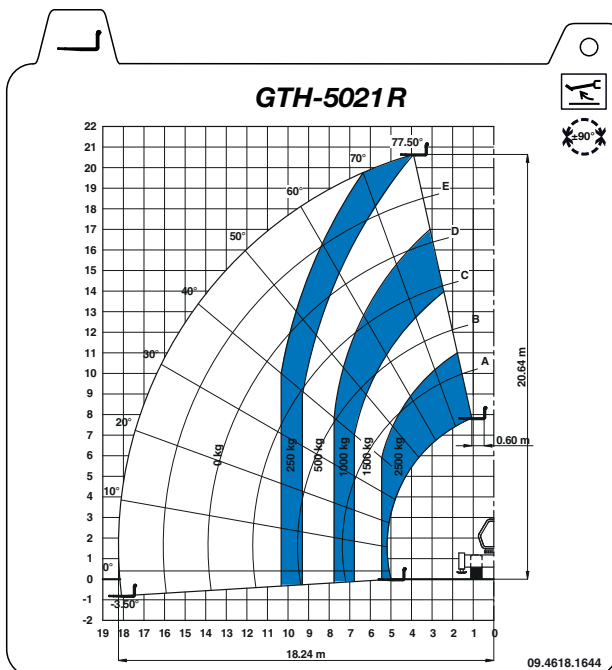
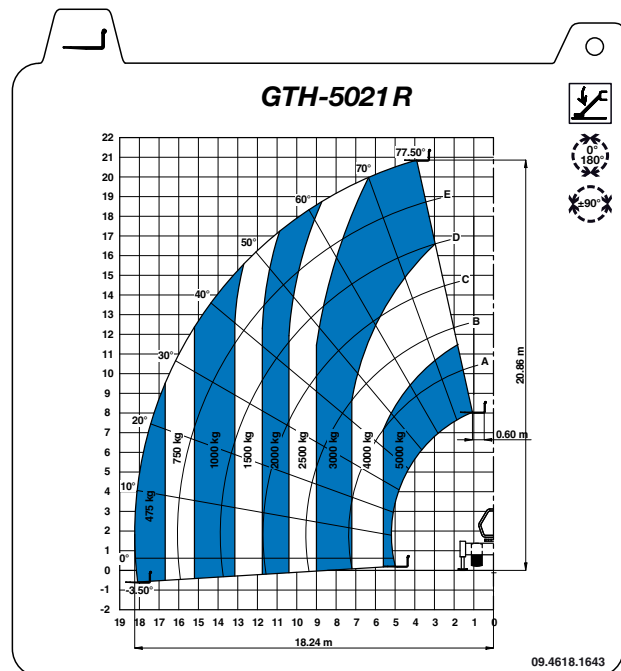
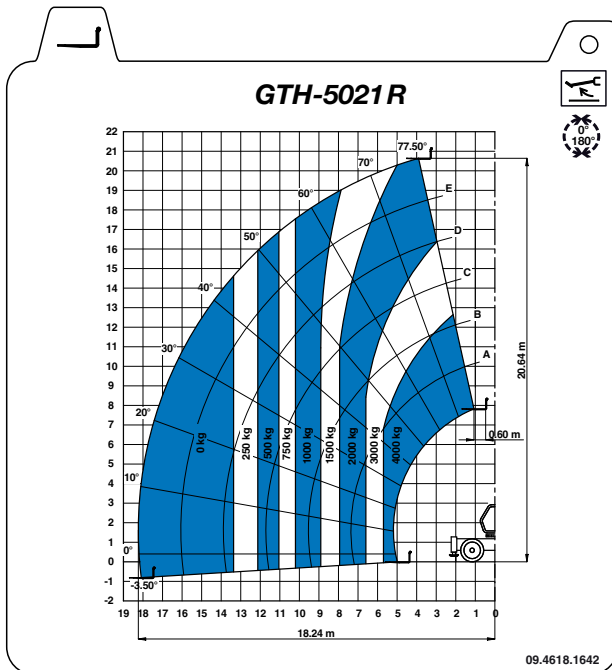
GTH-5021R	
Height, stowed	2.99 m
Length, stowed, at fork-holder plate	7.17 m
Width, standard tires	2.42 m
Wheelbase	3.00 m
Ground clearance, center	0.36 m
Weight	17,180 kg
Working fork height, maximum	20.86 m
Horizontal reach maximum	18.24 m
Reach at maximum height	3.91 m
Lift capacity, maximum height	
outriggers up	2,000 kg
outriggers down	3,000 kg
outriggers down & not aligned	250 kg
Lift capacity, maximum reach	
outriggers up	0 kg
outriggers down	475 kg
outriggers down & not aligned	0 kg
Maximum lift capacity	5,000 kg
Drive speed, maximum,	30 km/h
Chassis Levelling (if equipped)	+/- 6°
Turning radius, outside, 2 wheel steer	7.35 m
Turning radius, outside, 4 wheel steer	4.22 m
Fuel tank capacity	205 L
Maximum grade	38 %
Horn sound level, manufacturer's rating	110 dB
Backup alarm sound level, manufacturer's rating	95 dB
Mean assessed vibration level transmitted to body	0,32 m/s ²
Sound pressure level at the operator position (in accordance with EN12053)	74 dB
Guaranteed sound power level LwA (in accordance with the Directive 2000/14/CE)	102 dB

Floor loading information

Tire load, maximum	10,500 kg
Occupied floor pressure	20.32 kPa

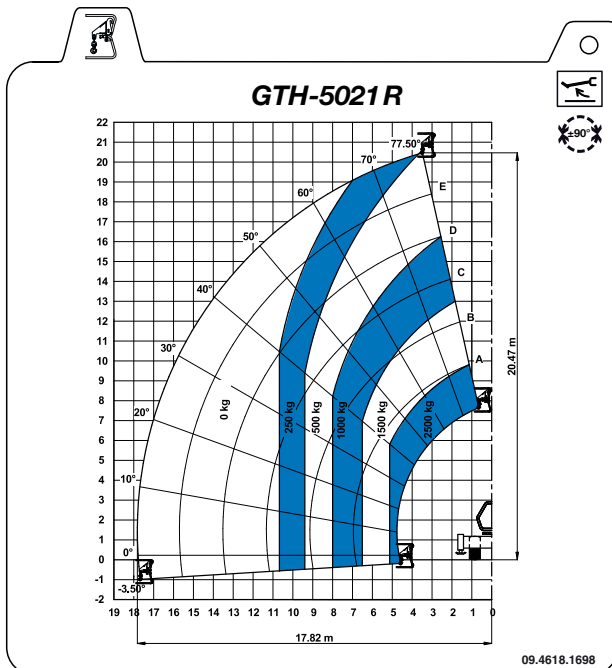
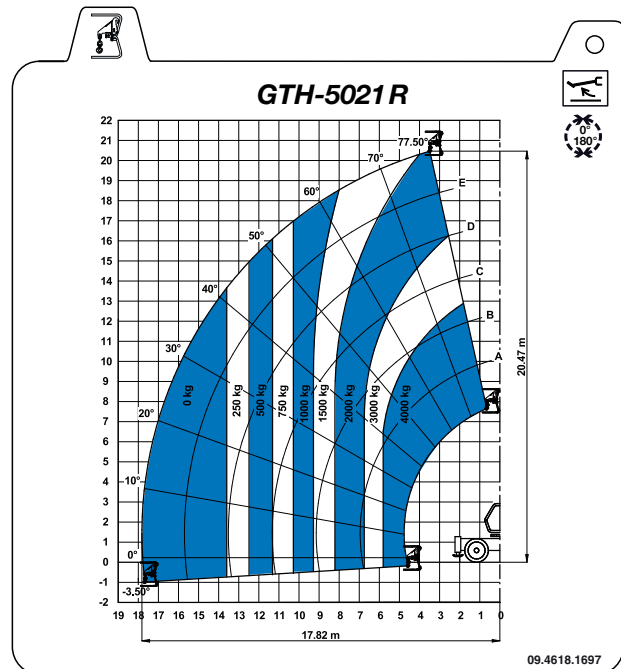
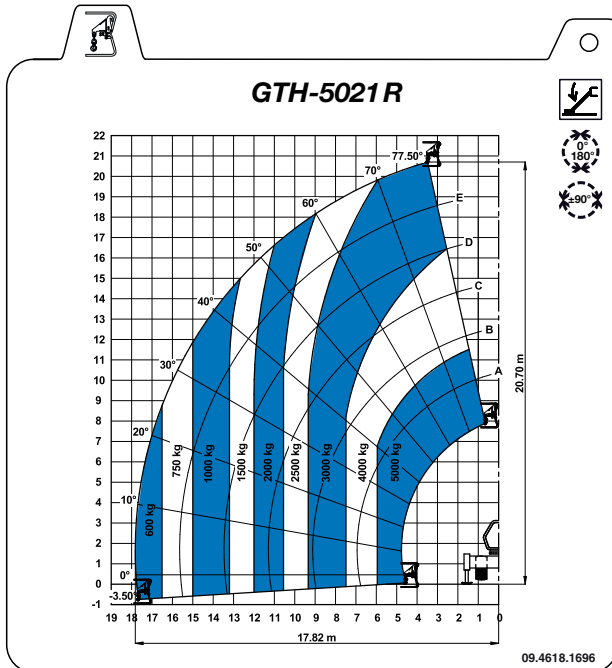
Load Charts

GTH-5021R, Standard Carriage



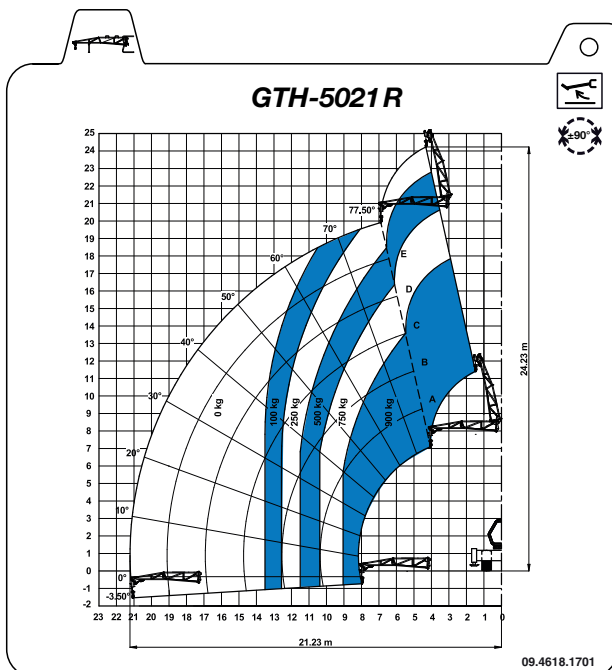
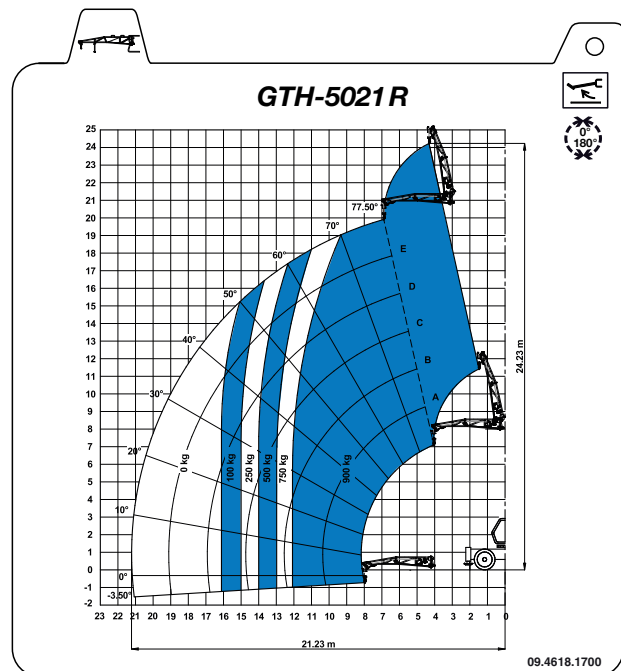
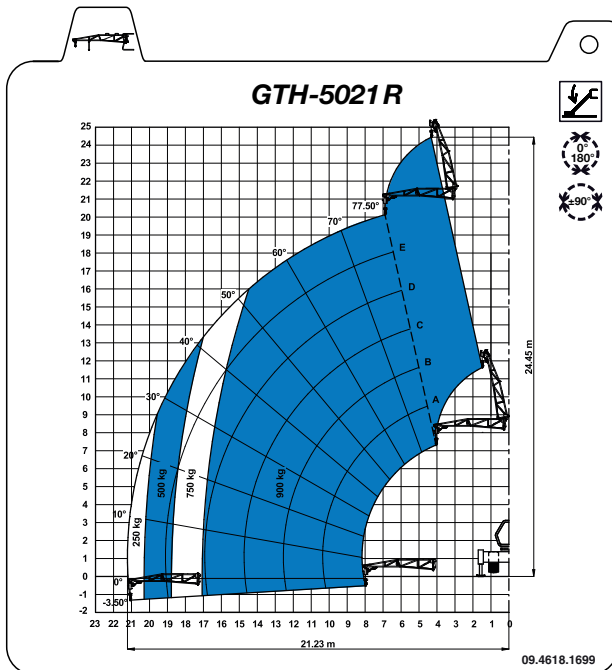
Load Charts

GTH-5021R, Hook



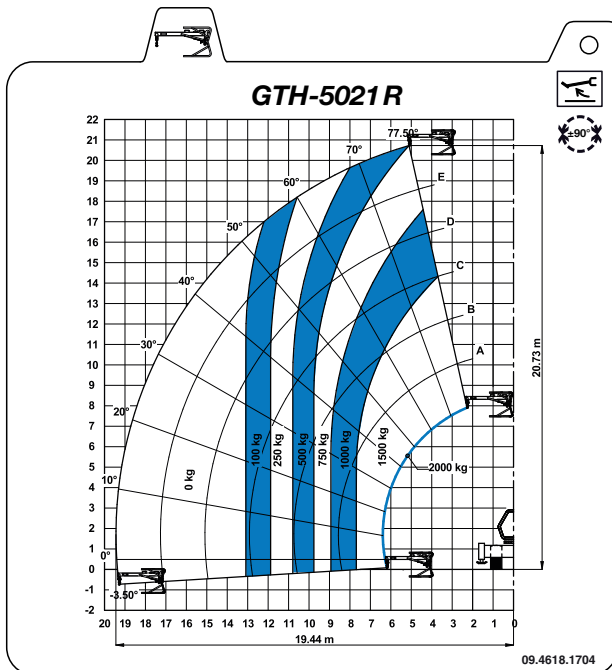
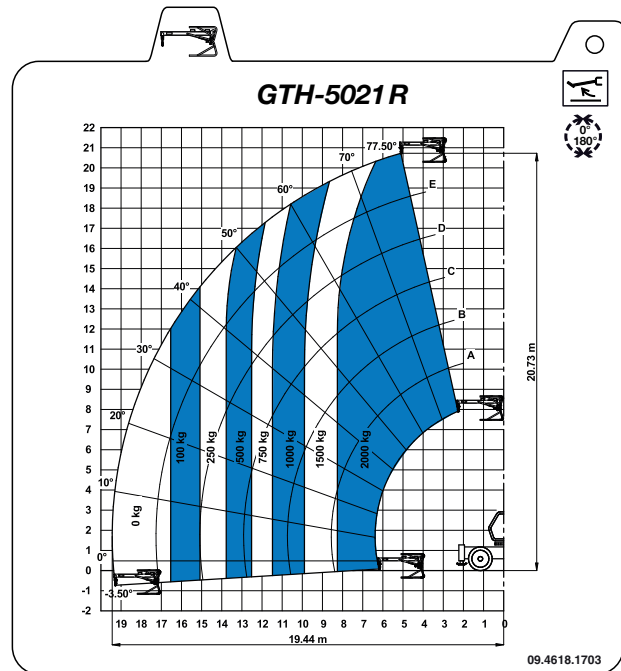
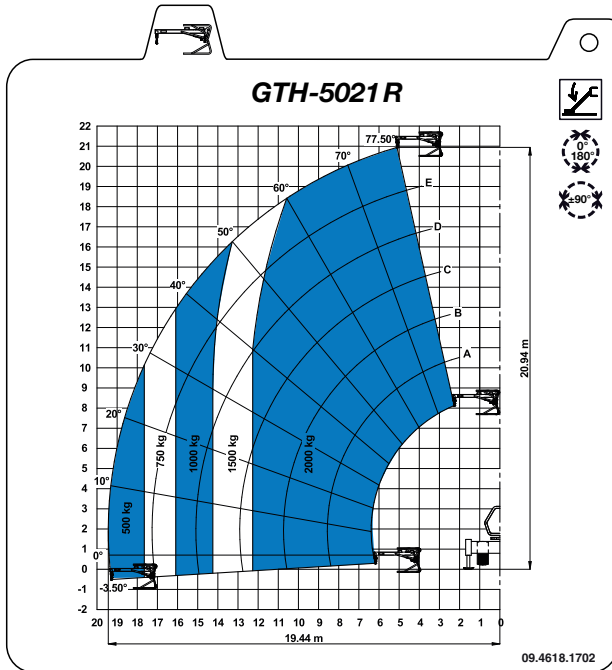
Load Charts

GTH-5021R, 900kg Jib



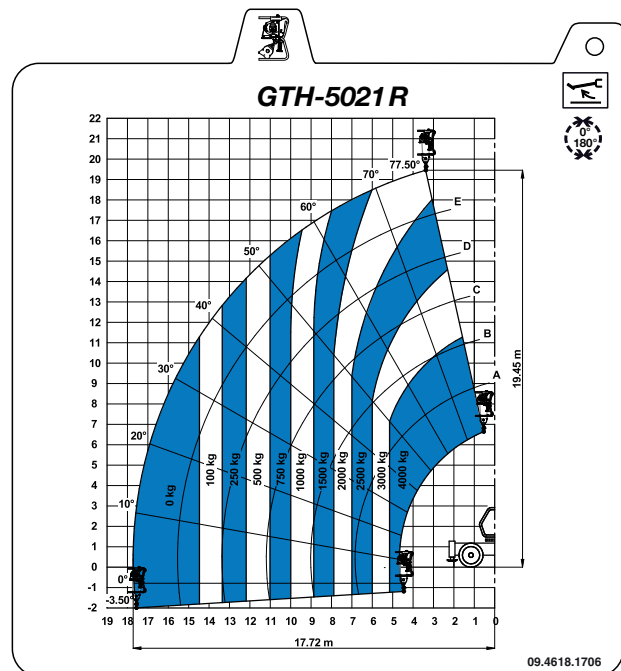
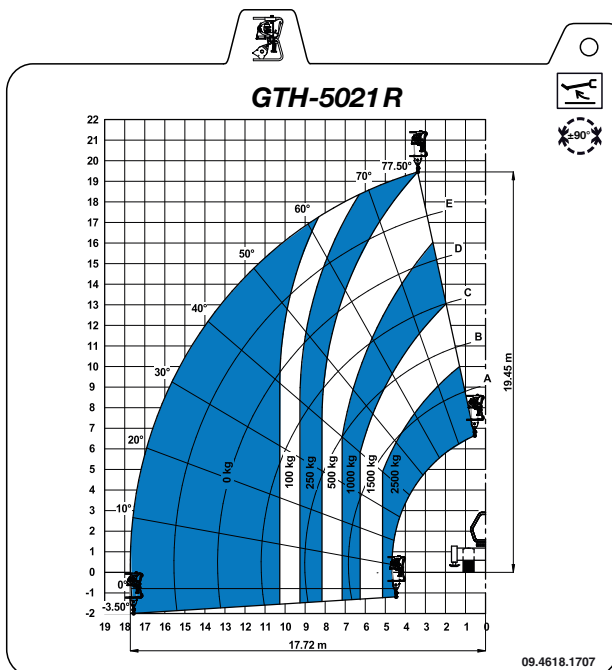
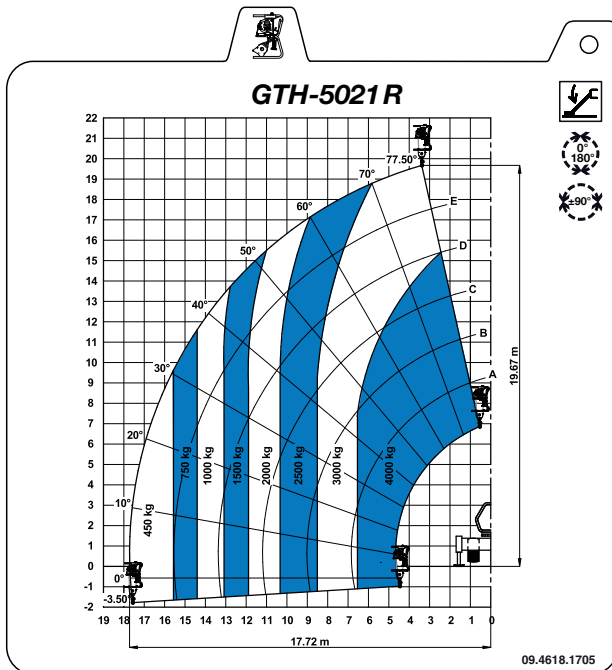
Load Charts

GTH-5021R, 2000kg Jib



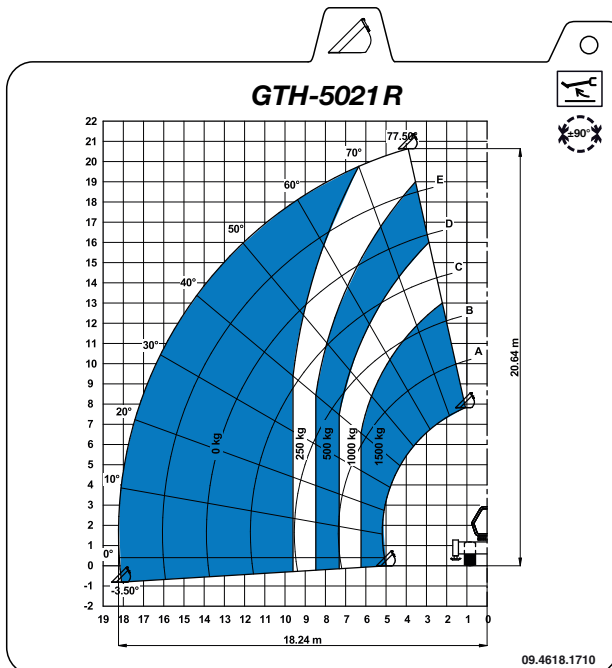
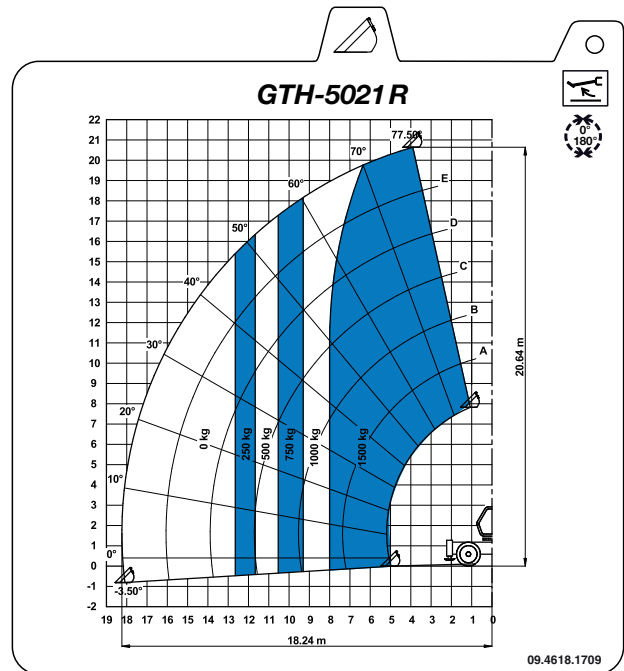
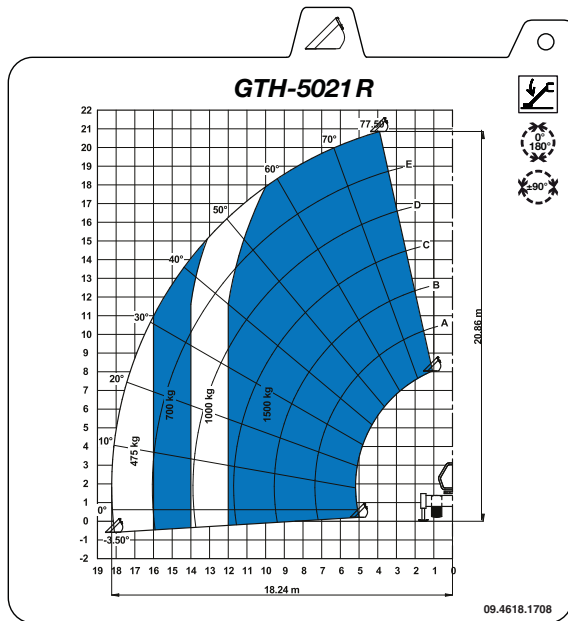
Load Charts

GTH-5021R, Winch



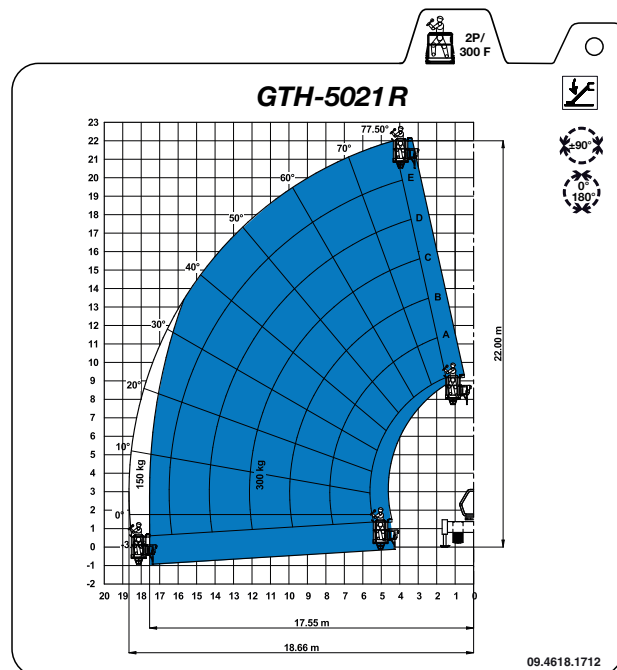
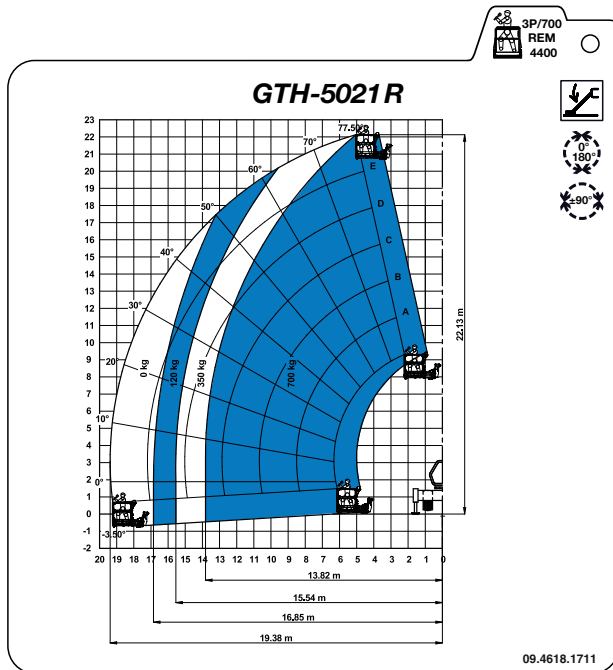
Load Charts

GTH-5021R, Bucket



Load Charts

GTH-5021R, Man-platform NOT FOR EU MARKET



Test

Overload Test Procedure

Telehandler coupled to attachments with fixed centre of load (Forks, Bucket, Clamps):

$$1,33 \times Q$$

Ref. Standard EN1459

Q = Nominal Rated Load Capacity

Telehandler coupled to attachments with oscillating centre of load (Hook, Jib, Hoist):

$$1,33 \times Q + 0,1 \times F_b \quad \text{on tires}$$

$$1,25 \times Q + 0,1 \times F_b \quad \text{on outriggers}$$

Ref. Standard EN13000

Q = Nominal Rated Load Capacity

F_b = Boom weight reduced (i.e. equal overturning moment) at boom tip.

EC Declaration Of Conformity

Contents of EC Declaration of Conformity

TEREX Global GmbH hereby declares that the machinery described below complies with the provisions of the following Directives:

1. EC Directive **2006/42/EC**, Machinery Directive.

The machinery described below is suitable for Genie telehandlers, models specified in the user manual.

Model/Type:

Description:

Serial Number:

Manufacture Date:

Country of Manufacture:

Manufacturer:

TEREX Global GmbH

Muhlenstrasse 26

8200 Schaffhausen

Switzerland

European representative:

Genie UK LTD

The Maltings

Wharf Road, Grantham, Lincolnshire

NG31 6BH United Kingdom

Empowered signatory:

Place of issue:

Date of issue:

www.genielift.com

Distributed By: